



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>







6491

# I D E A S.

OR,

## OUTLINES OF A NEW SYSTEM OF PHILOSOPHY.

BY

ANTOINE CLAUDE GABRIEL JOBERT,

AUTHOR OF THE 'PHILOSOPHY OF GEOLOGY,' &c. &c.



~~~~~  
"AUDI ALTERAM PARTEM."  
~~~~~

LONDON:  
SIMPKIN, MARSHALL, AND CO.,  
STATIONERS' HALL COURT.

1848.

B  
2275  
J63  
I2

# I D E A S.

---

ESSAY THE FIRST.  
ON CAUSATION AND FUNDAMENTAL IDEAS;

OR,

COMMON SENSE *versus* THE KANTIAN, BERKELEYAN, SCOTTISH,  
AND WHEWELLIAN DOCTRINES.





---

TO  
THE REV. ADAM SEDGWICK,

WOODWARDIAN PROFESSOR OF GEOLOGY IN THE UNIVERSITY OF  
CAMBRIDGE.

DEAR SIR,

MY offering to you the Dedication of this Essay, when the work which I principally oppose has been also inscribed to yourself, is a striking proof of the liberal and disinterested spirit with which you are disposed to listen to contrary opinions.

Strange as it may appear, although the system which I maintain is, in some manner, the reverse of that of your learned friend, it seems that we could concur, as upon a common ground, in the general views expounded in your Discourse on the Studies of the University. This might perhaps be received as a satisfactory explanation of the anomaly of this double

dedication; but the real motive is the profound esteem which philosophers of the most opposite doctrines must entertain for your judgment.

I remain, dear Sir,  
Your most sincere admirer  
and respectful servant,  
THE AUTHOR.

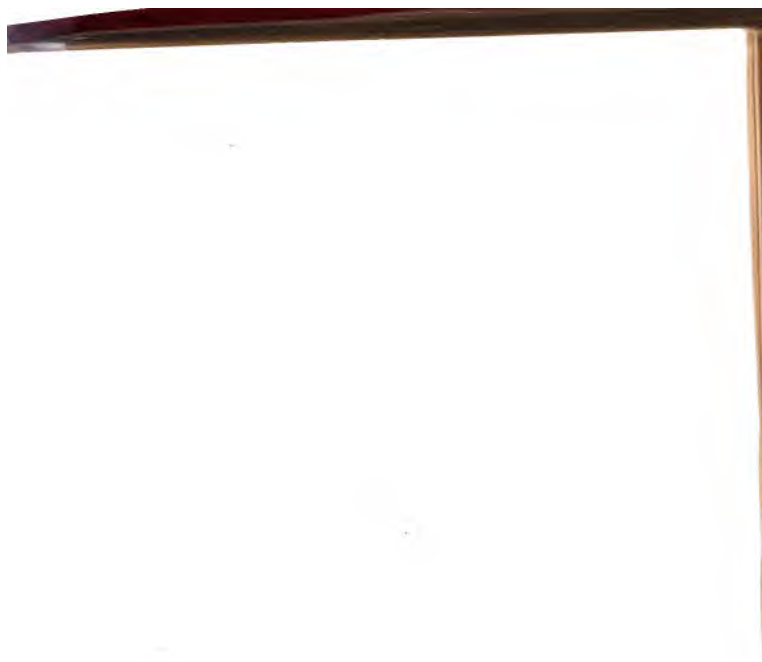
---

## P R E F A C E.

---

HAVING learnt from experience that there is a loss of energy and power in the translation of complex ideas from one language into another, because the figures and metaphors appropriate to the genius of an idiom, with which you are tolerably well acquainted, suggest themselves more readily to the mind, by a direct exertion, than they can through the differing metaphors and figures of another idiom, I have at once written the whole of this Essay in the English language ; and I hope it will be found that it has gained in strength and terseness upon my English version of the ‘Philosophy of Geology.’ The book is not yet written in French ; and if I ever publish it in my native tongue, singular to say, it will be only as a translation.





## CHAPTER IV.

	Page
§ XIV. Dr. Whewell's doctrines examined as <i>transcendental</i> —§ XV. His fundamental fallacy—Supposed antithesis between Thoughts and Things—§ XVI. Syllogism against the doctrine that Sensations and Ideas are like Matter and Form—Answer to the Syllogism—Refutation of the Answer—Proofs that Dr. Whewell's doctrine is in contradiction with itself . . . . .	43

## CHAPTER V.

§ XVII. Examination of transcendental arguments on Universal and Necessary Truths being <i>à priori</i> Ideas—Remarks of Dr. J. S. Mill—§ XVIII. Stronger arguments—Idea of number taken as a test of the doctrine—§ XIX. New argument showing that the Idea of Number is not an <i>à priori</i> Idea—§ XX. On Mathematical Truths—That their condition of real existence is to be found in matter itself—Dr. Whewell's mode of arguing analyzed—§ XXI. Lorenz Oken's discoveries . . . . .	53
---	----

## CHAPTER VI.

§ XXII. Interpretation of the word Idea, a source of misunderstanding amongst philosophers—Hume—Reid. Dugald Stewart against Locke, Hume, &c., that all ideas are sensations—His example of an intuitive necessary truth examined and rejected . . . . .	67
--	----

## CHAPTER VII.

§ XXIII. That the position taken by the author in the last chapters appears unassailable—That Dugald Stewart's <i>first occasions</i> are <i>first reports</i> of the senses . . . . .	72
--	----

## CHAPTER VIII.

	Page
§ XXIV. German and English school towards the end of the last century, against Bacon and Locke—That the supporters of that philosophy are pursuing a phantom—Pseudo-substantial substratum of the Ancients—Aristotle's phantasms or species, &c.—§ XXV. Kant's doctrine analyzed—§ XXVI. Coleridge's doctrine—§ XXVII. How imagination can be allured into these errors—Argument framed on the representation of an orange—Its fallacy . . . . .	75

## CHAPTER IX.

§ XXVIII. Real character of the physical philosophy of Kant—Monads of Leibnitz—Pure idea of substance—The noumenon—Kant's ground in its simplest form—His contradictions—How he tries to rectify them—His idea of a boundary between phenomena and noumena—Indistinctness of this line—Judgment on his system—V. Cousin and De Remusat—§ XXIX. That Dr. Whewell has left aside the idea of the Noumenon—His endeavour to establish the same antithesis between necessary and experiential truths as between thoughts and things—That his doctrine resolves itself into pure spiritualism . . . . .	89
--	----

## CHAPTER X.

§ XXX. Fichte—His spiritualism—His doctrine nearly allied to that of Berkeley—§ XXXI. Its fallacy on sounds and colours—Reality and entity of outward objects—§ XXXII. The author's interpretation of the <i>Ego</i> and the <i>Non-ego</i> —§ XXXIII. On the <i>Oneness</i> of the idea of <i>Perception-of-matter</i> —Axiom-makers—Perception, what it implies—Strong argument against the <i>Perception-of-matter</i> Philosophers . . . . .	101
--	-----

## CHAPTER XI.

	Page
§ XXXIV. Disputes on the meaning of words—Philosophers in contradiction with themselves—Berkeley—Denies the existence of the material world—Misinterpreted by Dr. J. S. Mill—Attacked by Kant—§ XXXV. Berkeley's argument put in a strong light—That he has enclosed himself in a vicious circle—His argument is superficial—§ XXXVI. How can the problem of the materiality of matter be solved?—§ XXXVII. How Berkeley puts himself in contradiction with his doctrine, and changes his ground—That the material world is the designed object of the intellectual—That the inorganic world has an existence independent from the organic . . . . .	108

## CHAPTER XII.

§ XXXVIII. The Kantian doctrines contrary to the evidence of our senses and reason—Sensations precede Ideas—Soul of man at first a blank sheet prepared by the divine hand—Instincts, desires, and affections cannot be assimilated to an intuitive knowledge of great generalizations—§ XXXIX. A short theory on the formation of Ideas . . . . .	118
--	-----

## CHAPTER XIII.

§ XL. Origin of our ideas—§ XLI. That a truth is true in itself—What are universal truths—That there is no difference between truths—Truism about necessary truths—That there are not two opposite sorts of truths—That all truths are experiential truths—No antithesis between truths—§ XLII. All truths are founded on facts—Classes of individual objects—Motions of objects—Natural laws . . . . .	123
---	-----



## CHAPTER XIV.

	Page
§ XLIII. Conclusions—Origin of the idea of Causation—Dr. Brown—Hume—In what they agree—Examination of Dr. Brown's opposition to Hume's theory that the idea of power is derived from memory, and the idea of necessity from experience—Inconsistency of Dr. Brown's disquisition—§ XLIV. Why Mr. A. Comte has thought that the word <i>cause</i> could be dispensed with in scientific language—§ XLV. M. A. Comte's error in rejecting all inquiries after causes—Natural ground of the idea of God—The idea of Causation to be pursued in the historical series of natural events . . . . .	128

## CHAPTER XV.

§ XLVI. A new Idea—§ XLVII. Founded on experience . . . . .	137
---	-----



---

# I D E A S.

---

## ESSAY THE FIRST.

### ON CAUSATION AND FUNDAMENTAL IDEAS.

---

#### CHAPTER I.

§ I. That the idea of Causation must not be considered, *à priori*, as dependent on the constant uniformity of the antecedent fact—§ II. Preamble.

#### § I.

I HAVE endeavoured, in the ‘Philosophy of Geology,’ to show that, although the idea of Causation may have its origin in the observation of the constant uniformity of the fact antecedent to any change, this uniformity must not be considered *à priori* as an invariable rule, in our study of the events which form the natural chronological history of our planet ;

since the discoveries of modern science have exhumed monuments of the past, which have led us to the contemplative idea of a beginning of the actual system of the inorganic world, and of a condition of the terrestrial surfaces anterior to the existence of animals and plants, and the subsequent fact of an organic creation—revelations which are in perfect accordance with the ancient traditional creed of a primordial creative act, anterior to the relations which subsist between events in the established order of nature.

It is my intention in the present book to add supplementary evidence to these views, and to strengthen, by more elaborate investigations, the deductions which I have already drawn from the examination of geological facts.

As in these inquiries the idea of Causation, taken in an enlarged sense, is proposed as the fundamental basis of a natural philosophical system, I feel it incumbent upon me to enter, more fully than I have done in the above-mentioned book, into the investigation of the origin and real value of that idea,

either in itself, or as standing on a parallel line with the ideas of Space, Time, Number, and in general with those ideas which philosophers have regarded as fundamental, and which the Scotch, the German, and I should say the English *Whewellian* school of metaphysicians, consider as existing *à priori* in the human mind.

## § II.

In the middle of the conflict which has taken place, and still continues unabated, between the Lockian and the Kantian doctrines, metaphysical problems have remained upon an uncertain and vacillating basis; and therefore I may hope that the present Essay will be received with indulgence, as a justifiable attempt at settling questions still pending undecided, but which the human mind will never leave until their solution has been definitively obtained.

With this preamble I now proceed in my investigations. I will only add, that the reader must not expect to find here a complete critical historical view

18 CAUSATION AND FUNDAMENTAL IDEAS.

of the state of metaphysical science: but only a searching examination of the true ground of general ideas, considered in themselves, and in their bearing upon my own system.

---

## CHAPTER II.

§ III. Sir John Herschel's doctrine on Causation discussed—

§ IV. Sterility of his proposed basis—Cause of his error—

§ V. That the relation between antecedent and consequent fact subsists independently of our consciousness.

### § III.

AN eminent philosopher and mathematician has disputed the ground upon which Hume's views are founded,\* and tried to trace the connexion of cause and effect to an inward faculty of the mind; introducing thus, into the question, an element of confusion and error, which the power of his intellect, and the great authority of his name, will not render it a very easy task to dissipate.

"Whatever attempts," says Sir John F. W. Herschel, "may have been made by metaphysical writers to *reason away* the connexion of cause and effect,

\* I here name Hume, because the views opposed by Sir J. Herschel belong to him, not to Dr. Brown.

and *fritter it down* into the unsatisfactory relation of habitual sequence, it is certain that the conception of some more real and intimate connexion is quite as strongly impressed upon the human mind as that of the existence of an external world . . . . . it is our own immediate consciousness of effort, when we exert force to put matter in motion, or to oppose and neutralize force which gives us this internal conviction of power and causation." \*

It appears from this, that Sir John Herschel is impressed with the idea that the definition of *Causation*, as a simple relation of *habitual sequence* between events or motions, is insufficient or incomplete as the basis of a philosophical system ; and it has been seen that I agree with that part of his views, although for very different reasons.

It must be remarked that the element, viz., consciousness of effort, which is said to have been omitted by an *enormous oversight* of *Dr. Brown*, in the sequence of events, appears, nevertheless, altogether extraneous to the doctrine itself.

\* ' Treatise on Astronomy,' chap. vii. p. 233.



Although we are bound to the universe by the relations of our organs with external things, in the judgment which we form of them, we do not necessarily enter into the examination of the connexion which they have with our minds; but considering them as having an independent existence, we study the laws which govern the phenomena of nature, as disinterested spectators. True it is, that in contemplating our own faculties, as forming a part of the sensible world, we may recognise that there is within ourselves, or within our mind, the power of originating an impulse. But, knowing that we are possessed of this faculty, or only, as Sir J. Herschel calls it, "having the immediate consciousness of effort," has nothing to do with the idea of the relation between the facts through which our *will* must come into action. Any impulse which our mind, through the agency of our body, may give to a foreign, or even to our own body, or its parts, forms, in Dr. Brown's doctrine, an antecedent fact, which is followed by its appropriate consequent fact; and it is from the relation of these, as well as of other natu-

ral facts, between themselves, that, according to that doctrine, we derive the idea of Causation.

Thus, if we let a heavy body drop from our hand, or if we throw a stone in the air, or stop the motion of a machine, it is not from the act of our will that we deduce the philosophical idea of Causation; though in common language, our muscular movement or effort will be said to be the cause of the change; but it is from this experience that we learn the power of our will; and we derive the idea of Causation from the remark, that in similar circumstances, the same act produces always the same result; that whenever a hand drops a heavy body, it will fall to the earth in a perpendicular direction; that whenever a stone is thrown in the air, at a certain angle, it will describe a certain curve in falling to the ground; that the motion of a machine will cease as long as a sufficient muscular effort is used to neutralize the elasticity of the spring or the force of the motive power. Our action, whether it is or not directed by the mind, forms an antecedent fact, which, in similar circumstances, is

always followed by the same result: it is to these antecedent facts, observed from our own connexion with nature, no less than to the antecedent facts of other material connexions, as pointed out by Dr. Brown in the case of the fire melting the metal, and by Dr. J. S. Mill in a very great variety of examples and details, that we give the name of Causes; and to the results, or following facts, the name of Effects. From the observation of this constant relation between facts, we derive the general idea of Causation. It would, therefore, be impossible to adjust Dr. Brown's philosophy to that of Sir John Herschel, and introduce into the enumeration of the sequence of events, the idea of our own consciousness of effort.

#### § IV.

It would be a very sterile philosophical system indeed which could rest on Sir John Herschel's proposed basis. For there is no very great depth in the idea of *consciousness of effort*; though it is proclaimed as "a thing entirely different from mere

desire or volition on the one hand, and from mere spasmodic contraction of muscles on the other."

An ape throwing a nut or jumping on a tree, has the *consciousness of effort*, for he proportionates the contraction of his muscles to the effort requested for the motion of his body and limbs. A dog, a squirrel, a stag, or a kangaroo, in making a spring, must have the *consciousness of effort*, or the *conviction of power*, according to the definition above; otherwise how could the animal calculate the amount of force required for alighting at the measured distance? Consciousness, even in inferior animals, must direct volition, otherwise how could we account for the volition having such an exact command over the *quantum* of the effort?

What then would be the philosophical value of the idea of Causation, if it was only the equivalent of a consciousness of effort? seeing that there is no more depth in the act of dropping a stone, whether the hand is that of a man or that of an ape. And what insight could we ever procure of the principles of nature, by a faculty possessed by the lower animals

as well as by ourselves? It might be said that we can reason upon the fact of our having the consciousness of effort, or, in other words, that we know that we have the consciousness of effort, while the ape does not: this is true; and it is a most essential mark of the superiority of our race. We have the consciousness of our consciousness,—this is certain. But when we go so far in mental abstraction, we entirely lose sight of the problem in question. That *the consciousness of our consciousness* should be equivalent to the idea of Causation is unintelligible, for it is not possible to connect this idea, the consciousness of our consciousness, with that of the sequence of natural events. This sequence exists independently of the knowledge that we acquire of its existence. Hence Sir John Herschel's opinion, whatever view we may take of it, appears absolutely inadmissible.

If the idea of muscular force could be considered as having any relation at all to the origin of the idea of Causation, it would be only in as much as, in transforming our ideas into graphic signs, we may compare, or assimilate, by a metaphor, natural

general forces to our own powers. But arguing from this—that the idea of these powers is the real source of the idea of general forces, would be making a merely philological form to decide an independent philosophical argument, and such is, in my opinion, the true cause of Sir John Herschel's error;\* an error on which I would not have dwelt so long, if it

\* I think I may as well add to this, that Sir John Herschel's argument is not a novelty, for it has been answered by Hume in the following way:—

“Some have asserted that we feel an energy or power in our mind; and that, having in this manner acquired the idea of power, we transfer that quality to matter, where we are not able immediately to discover it. The motions of our body, and the thoughts and sentiments of our mind (say they), obey the will; nor do we seek any farther to acquire a just notion of force or power. But to convince us how fallacious this reasoning is, we need only consider, that the will, being here considered as a cause, has no more a discoverable connexion with its effects, than any material cause has with its proper effect. So far from perceiving the connexion betwixt an act of volition and a motion of the body, it is allowed that no effect is more inexplicable.....in short, the actions of the mind are, in this respect, the same with those of matter. We perceive only their constant conjunction, nor can we ever reason beyond it. No internal impression has an apparent energy more than external objects have.” Hume, *On the Understanding*, part iii. § xiv.

had not been promulgated by a man whose works can never be perused by the lovers of science without a deep admiration, and whose ideas are admitted by many on the simple authority of his name.

§ v.

There can be no objection to the proposition (No. 371) that "all bodies with which we are acquainted descend to the earth, and are urged thereto by a force or effort the direct or indirect result of a consciousness or a will, which force we name gravity." But we arrive at this notion through the observation of the antecedent and the consequent facts. The relation subsists independently of our consciousness; for it might have existed even if man had never come into the world, and the extinction of our species would not interfere with these laws, if the actual order of nature remained as it is, with the exception of our presence; as there is no doubt it could. Sir John would not oppose this, I think, since he rejects the philosophy of Berkeley and admits the real existence of an external world.

## CHAPTER III.

§ VI. Dr. Whewell's view on Causation—§ VII. His Doctrine on General Ideas examined according to the rules of Common Sense — § VIII. His Doctrine of the idea of Space—§ IX. On the idea of Time—§ X. On the idea of Motion—§ XI. On the idea of Number—§ XII. On the idea of Substance—§ XIII. On the idea of Cause.

## § VI.

THE Rev. Dr. Whewell, in his 'Philosophy of the Inductive Sciences,' a very eloquently written book, full of profound and ingenious details, appears to have taken nearly the same view of the idea of Causation as Sir J. Herschel; for he admits that the conception of FORCE involves the idea of CAUSE, and that this conception is suggested by *muscular action exerted*. To this I consider that what has been said before is a sufficient answer. But as Dr. Whewell classes the idea of Causation amongst other general ideas which he considers as existing *à priori* in the human mind, it will be necessary to give here



a rapid sketch of his system, and to examine the fundamental ground of his philosophical schemes.

### § VII.

According to Dr. Whewell's doctrine, the ideas of Space, Time, Number, Motion, Substance, Causation, &c. are not derived from experience, *because these truths are necessary and universal.*

But because truths are universal and necessary, it does not follow that our ideas of them are not derived from experience. We can only conclude from Dr. Whewell's arguments that these ideas are founded on truths; and that there is necessarily, therefore, a universal external world independent of our ideas. It is from our contact with this outward world that our ideas of Space, Time, Motion, Substance, and Causation arise.

### § VIII.

"The idea of SPACE," says Dr. Whewell (Aphorism XXI.), "is not derived from experience, for

experience of external objects presupposes bodies to exist in space."

But because bodies exist in space, without our experience, it does not follow that our ideas of bodies are not derived from experience.

In the developments of his doctrine (Chapter III.) Dr. Whewell remarks :—

That "Experience gives us information concerning things without us : but our apprehending them *as* without us, takes for granted their existence in space."

This is true ; but it does not show we have an idea of things independent of experience.

"We cannot," adds Dr. Whewell, "derive from appearances, by the way of observation, the habit of representing things to ourselves as in space ; for no single act of observation is possible, any otherwise than by beginning with such a representation, and conceiving objects as already existing in space."

This is only affirming that we cannot derive the general idea of Space from the idea of particular spaces, but that it exists previously in our mind.

To which it is sufficient to oppose the simple truism, that our general idea of Space is composed of ideas of particular spaces, whether these particular spaces are known to us from direct experience, or attained by the power of our imagination, in proceeding from the known to the unknown.

We acquire the idea of Space as we receive the impressions of outward objects, from the tenderest infancy. The impressions are at first weak, as is the power of discernment of the child. But the spacial parts, or, in other words, the outlines of objects, become more and more determined in the mind as the power of discernment increases, up to the time of mature reason, when we are able to shape into general ideas the result of our experience, and even to construct philosophical systems.

I come now to the last argument—"that our mode of representing Space to ourselves is not derived from experience; because, through this mode of representation we arrive at propositions which are rigorously universal and necessary."

But, whether propositions, or, more correctly,

whether truths are universal and necessary or not, they must be so independently of our mode of representing them to ourselves; for *our ideas of them can neither make them what they are, nor change their nature*. Therefore, if we find that they are universal and necessary, it must be because we have discovered that they are so, by becoming acquainted with them, or, through experience.

It is added, as an example, "that two sides of a triangle are greater than the third; that this is true of all triangles; true, in such a way that the contrary cannot be conceived, and that experience could not prove such a proposition."

All that can be concluded from this is, that necessary and universal truths exist independently of our experience; that we know them to be so, through our experience; and that we can reach the *absolute* by the power of our imagination.

That these truths exist *à priori* in the mind, is an unjustifiable, and even unintelligible assumption. The simple fact being, that the sentient principle within us enters in contact or in communion with them,

and may thus recognise their necessity and universality. This is the only philosophy that can bear the test of common sense ; and on this test I put the greatest reliance, being entirely of the opinion of my celebrated countryman, M. Victor Cousin, when he says : “ Nous avouons que nous préférons encore le sens commun au génie, et l'esprit de tout le monde à celui d'un homme quelqu'il soit.”\*

#### § IX.

“ The idea of TIME,” says Dr. Whewell, “ is not derived from experience ; for experience of changes presupposes occurrences to take place in time.”

This is a reproduction of the fallacy in the argument on space. Because *occurrences* take place in time, it does not follow that our idea of changes (or occurrences) is not derived from experience.

Time is nothing but the succession of events, and we know events by experience only. Our judgment on the succession of events cannot be formed but from facts *successively* communicated by our

\* ‘ Leçons sur la Philosophie de Kant,’ Paris, 1844.

senses; and, therefore, facts are the measure of events, independently of the idea which we form of this measure.

Dr. Whewell's mistake consists in this,—that he confounds the *idea* of time with time itself.

### § x.

In Aphorism XLIII. the learned Doctor only affirms, “that there is a pure science of *motion*, which does not depend upon observed facts, but upon the idea of motion.” As this is not supported by any argument, it is to be answered by affirming, that we can only acquire the idea of motion by the observation of something that is moved; a truth upon which Reid himself has strongly insisted, and that many will admit without further elucidation. There is no possibility of conceiving motion independently of matter; and the same must be admitted of the idea of space and time.\*

It is, singularly enough, acknowledged (chapter

\* See ‘Philosophy of Geology,’ second edition, page 39 and following.

viii., book iii., vol i.) that the laws of motion were *collected* from experience ; but to dispose of the contradiction which the author very well perceives, “ that experience has done that which *he* has proved she cannot do,” he enters into a long and desultory discussion, of which the following is an extract, which may serve as a sample of the whole chapter :—

“ When we return upon our path, we cannot find the point at which we deviate, we cannot detect a false step in our deduction . . . . our senses give us no evidence of a necessary connexion in phenomena. Our observation must be limited, and cannot testify concerning anything which is beyond its limits,” &c., &c., &c., and from want of better arguments, the author tries to change the field of inquiry : unable to find why the laws of motion, contrary to his system, are not axiomatic, since the knowledge of these laws is acquired from experience, he imagines that they “ borrow their *form* from the idea of Causation, though their *matter* may be given by experience,” and that, “ hence they possess a universality which experience cannot give.” But this is only

displacing, not removing the difficulty, since there is as much reason to think that the idea of Causation has been collected from experience, as the idea of motion itself. This heavy chapter of painfully elaborated arguments, plainly shows the extreme difficulty the author finds himself in to maintain the false position he has assumed in contending that "experience cannot conduct us to universal and necessary truths."

#### § XI.

As to the idea of NUMBER, it is assumed that since we cannot see or imagine we see five things, without perceiving that three and two, or four and one, are five, it follows that we perceive this truth by intuition.

But it might be remarked that we never know, or imagine, numbers, before we have received impressions of things, and that no philosopher has yet been able to prove that series of numbers are not the equivalents of series of real or imaginable sensations. Universal and necessary truths, concerning



numbers, are independent of ourselves ; like other physical truths, they belong to the external world ; and, therefore, are taken cognizance of by the mind entering in contact with them through the senses. I shall consider this question of number more fully in another chapter.

## § XII.

In Aphorism LXXVII. Dr. Whewell says, that “we have an idea of substance,” and that “an axiom involved in this idea is, that *the weight* of a body is the sum of the weights of all its elements.”

Here we are given to understand that the idea of substance exists in our mind on account of the rule established in Aphorism III. ; that “ideas existing in our minds only, can give to the phenomena that coherence and significance which is not an object of sense.” But this is simply affirming that our general idea of substance is not composed of the particular ideas of substance which we have acquired by experience, and to refute this assumption we have

only to refer to our argument against the same assertion about the idea of space.

The axiom of the indestructibility of substance, says Dr. Whewell, "proves the existence of the idea of substance:" he would grant, no doubt, that we shall not disturb the logical value of the argument, if instead of using the word axiom, we employ the word *idea*; because there is no particular reason why the word *axiom* should be used here, if it is not to cover a fallacy;—then the sentence is, "the idea of the indestructibility of substance proves the existence of the idea of substance." Now, as the word *idea* is repeated in both terms, it may be eliminated without altering the value of the argument: thus it will remain that the "indestructibility of substance proves the existence of substance," which is certainly as true as when I affirm that the hardness of a stone proves the existence of the stone. But when it is concluded from such reasonings as these, that "the idea of substance is a necessary and universal truth, collected not from the evidence of our senses, but from *the operations of our ideas*, we

can only wonder at seeing to what degree of error a man of profound skill and of great judgment may be led by the unguarded admission of *one* first general fallacy.

### § XIII.

We come now to the idea of cause, and it is also asserted (in Aphorism XLVI.) that "the idea of cause is not derived from experience, for *in judging of occurrences which we contemplate*, we consider them as being universally and necessarily causes and effects, which a finite experience could not authorize us to do."

Here it is to be remarked that the expressions "in judging of occurrences which we contemplate," are equivalent to "having experience of;" for in order *to contemplate* we must not only be acquiring, but have already acquired experience; contemplation being the act of considering with attention, and to judge being the act of shaping into an idea the object or objects of contemplation.

The aphorism, disengaged from the elements

which disguise its real import, would be formulated thus :—

“The idea of cause and effect is not derived from experience, for experience tells us that causes and effects are universal and necessary, whilst a *finite* experience could not authorize us to do so.”

The fallacy is the same as that on space, time, matter, and substance. The introduction of the word *finite* only proves the perplexity the learned author was in to prevent a direct contradiction in the expressions used in the aphorism. It is true that our experience of things can be but finite, inasmuch as we cannot see further than the limit of the multiplied power of our organs; but our imagination can generalize and reach the idea of the infinite, by a process such as that which I have pointed out in § VIII., and also in the ‘Philosophy of Geology.’

“Through our unassisted sight, we discover in the depth of the heavens, innumerable stars: the telescope, multiplying the power of our eyes, shows us, beyond these nearer globes, others whose enfeebled

light appears to melt in the distance ; imagination, under the guidance of analogy, leads us to suppose, beyond these latter worlds, other worlds again, whose light, lost in immensity, will never reveal to us their real existence ; and, beyond these, we still picture another more distant range, and worlds without end, in the same manner as we conceive series of numbers to which we can add other numbers without limit. Such is the philosophical idea of infinity attached to space : if imagination placed a limit beyond which worlds do not exist, it would still suppose the existence of light, or of some fluid upon which to settle itself ; for, if you subtract entirely from the idea of space or extensiveness, the idea of matter, there remains nothing which could serve as a basis for an idea." \*

Dr. Whewell's conclusion, "that the axiom that every event must have its cause, is true, independently of experience," only enunciates the fact that there is a succession of events in an outward world, independent of our ideas, or of our own existence.

\* The 'Philosophy of Geology,' second edition, p. 41.

The doctrine developed in book iii. rests on the unwarrantable assumption that the idea of cause is introduced in our *experience* by the active, not by the passive, power of our nature. This completely subverts the meaning of the word *experience*, even as admitted by Dr. Whewell himself; for, what could be the difference between experiential and necessary truths, if the latter truths are, as well as the others, introduced in our *experience*?

---

## CHAPTER IV.

§ XIV. Dr. Whewell's Doctrines examined as *transcendental* (!)—§ XV. His fundamental fallacy—Supposed antithesis between Thoughts and Things—§ XVI. Syllogism against the doctrine that Sensations and Ideas are like Matter and Form—Answer to the Syllogism—Refutation of the answer—Proofs that Dr. Whewell's doctrine is in contradiction with itself.

## § XIV.

HITHERTO I have discussed Dr. Whewell's doctrine simply according to the rules of common sense, without entering upon what is called the *transcendental* ground. This, perhaps, would be sufficient for unprejudiced minds ; but I know it will be only considered as superficial, and even looked upon with a sort of contempt, by many whose rectitude of judgment has been biased by sophistical subtleties. I will, therefore, now attempt to unravel the metaphysical intricacies with which German and English philosophy have surrounded human knowledge, and then

endeavour to place the basis of our ideas upon its true and natural ground.

### § xv.

The fundamental fallacy of Dr. Whewell's general argumentation is that of assuming that the *thinking faculty*, in the human individual, is the equivalent of the *thought* or the *idea*; or can produce thoughts and ideas, by its own proper power; and that thus this faculty is absolutely independent of the outward world. This fallacy is apparent from the first exposition of his views, in chapter ii., section i., *Thoughts and Things*.\*

\* I give here the passage in full, that I may not be accused of putting my own construction on Dr. Whewell's scheme:—

“The simplest and most idiomatic expression of the antithesis to which I refer is that in which we oppose to each other THINGS and THOUGHTS. The opposition is familiar and plain. Our thoughts are something which belong to ourselves; something which take place within us; they are what *we* think; they are actions of our minds. Things, on the contrary, are something different from ourselves and independent of us; something which is without us; they *are*; we see them, touch them, and thus know that they exist; but we do not make them by seeing or touching them, *as we make*



First it is said, that "our thoughts are something which belong to ourselves—actions of our minds—things are independent of us, we do not make them—but we make our thoughts by thinking them."

By this it is premised that thoughts and *things* form a real antithesis, are quite separate, and exist independently of each other. It would seem, if we stop at these expressions, that the antithesis of thoughts and things is complete and perfect; that our thoughts are independent of things in the same degree as things are independent of our thoughts. It is in this that Dr. Whewell's fundamental error lies: for things being independent of thoughts does not make thoughts independent of things.\*

*our thoughts by thinking them; we are passive, and things act upon our organs of perception.*" (Second edition, p. 17.)

\* I notice here one of the most flagrant examples of this fallacy. It is said, p. 24, vol. i. :—

"*Facts involve thoughts*, for we know facts only by thinking about them." Now this is exactly the reverse of the truth, which is that *thoughts involve facts*. The proof that facts do not involve thoughts is, that facts do happen every-

Firstly.—Dr. Whewell assumes that which is denied, or that which is to be proved, viz.:—that thoughts exist in the mind independently of things. Therefore, at this first stage of his argumentation, we stop him, and say that all which follows rests on a *petitio principii*.

Secondly.—It is not only assumed that our thoughts exist in the mind independently of things; but that *we make our thoughts by thinking them*.—But how we can make *a thought* by thinking *a thought*, is what Dr. Whewell does not explain; and it would be only by explaining this, that he could prove that a thought or *an idea* exists in the mind *à priori*. For, if he cannot prove this point, before he introduces into the mind an element of thought, it will be evident that we have made a thought by thinking this element, and not by thinking a thought. Dr. Whewell is, in reality, obliged to introduce that new element, for the last proposition is immediately fol-

where—in the bottom of the sea—in the bosom of the earth, in the moon, the sun, the nebulae, &c., which we can never know anything about.

lowed by the expressions which conclude the sentence: "we are passive, and things act upon our organs of perception." This is dropped at the end of the paragraph, as if unconsciously, without showing the necessary connexion which it has with the formation of thoughts or ideas; but why is it there at all, if it is not because the learned author had a secret consciousness that his principles would have been incomplete without this *complemental* element?

However, this passiveness of the mind is soon lost sight of; and it would be easy to follow the learned Doctor, step by step, in the development of his fallacious antithesis, pointing out in each argument the same error which vitiates the whole of his theory of *à priori* ideas; viz., assuming that *fundamental ideas* are, in the human mind, as independent of things as things are independent of ideas: a mistake, however, much more marked in the former edition of his works; and which, I suspect, from a few changes which are introduced in the second edition, Dr. Whewell has begun to perceive, but which cannot be rectified without the whole of his

views on *ideas* assuming exactly the opposite form, that is, by *ideas* being considered as purely derived from sensations.

I will now show, by means of a few examples, how Dr. Whewell's first fallacy pervades the whole ground-work of his philosophy.

### § XVI.

“Sensations and ideas in our knowledge are like matter and form in bodies. Matter cannot exist without form, nor form without matter, yet the two are altogether different and opposite. There is no possibility *either of separating or of confounding them*: the same is the case with sensations and ideas.” \*

“Ideas are not *transformed*, but *informed* sensations; for without ideas sensations have no form.” †

From these I think the following syllogism may be constructed, as comprehending exactly the doctrine expressed in the preceding quotations:—

\* Aphorism VI.

† Aphorism VII.

Ideas are forms of our sensations : universal and necessary truths are ideas : therefore universal and necessary truths are forms of our sensations.

Now, as it is admitted that our sensations *cannot exist* without forms, and that our sensations *are derived from experience*, it follows that ideas are derived from experience also ; and the syllogism above is therefore fatal to Dr. Whewell's doctrine of *à priori* ideas.

To this argument the following objection was made by a most zealous advocate of Dr. Whewell's views :—

“ The *matter* of our knowledge is derived from experience, the *form* is not.

“ You might on the same ground say that the form of all gold coins and plate is derived from the mine ; your argument might apply *verbatim*.

“ Gold cannot exist without forms, namely, coins, plate, ingots, or some other : but gold is derived from the mine : therefore the forms of gold are all derived from the mine.

“ The answer would be, that the matter is de-

rived from the mine, but the form is given by the artificer."

The reply to this is, that since gold cannot exist without form, it has a form in the mine also; and the artificer can only modify forms into other forms, and arrange irregular fragments into coins, plate, ingots, or any other fantastical shape, either in natural moulds, or through imitation or the power of imagination. This cannot impugn the value of my argument, which is, that gold cannot exist without form, and that, therefore, I cannot have the sensation of the matter GOLD without having at the same time the sensation of a FORM of gold. That the mind can combine ideas and work them out into imitative and fanciful forms, is a question into which I need not enter. If matter cannot exist without form, form as well as matter is a condition of our sensation; and if a necessary truth is a form of our sensation, this form must enter our mind at the same time as the matter of the sensation itself; and *the form* of the sensation (or the idea) is, as well as the matter, *derived from experience*.

There is no possibility of avoiding this conclusion.

But I have a still stronger objection to make to my learned opponent's argument. It is, that he could not, in defence of Dr. Whewell's system, employ such a mode of reasoning, because Dr. Whewell not only considers the form of gold as furnished *à priori* by the mind, but the *substance* of gold itself is, in his view, "collected, not from the evidence of the senses, but from the operations of our ideas:" in other words, "the substance, or the matter, of gold, is a necessary and universal truth" \*—an idea which cannot be acquired from experience. So that the argument against my syllogism has no value, since that argument is in direct opposition to Dr. Whewell's doctrine—this doctrine being that the mine of gold furnishes *neither substance nor form* to the artificer.

It is also to be remarked here, that this last argument leaves entirely without any real ground the fundamental aphorism (VI.) upon which Dr.

\* See 'Philos. of the Ind. Sci.' p. 391.

Whewell's doctrine of ideas is supported. This aphorism affirms, that there is the same relation between sensations and ideas as between matter and form ; and both matter and form being, according to the doctrine, *fundamental* or *à priori* ideas, it follows, that the metaphor leads to a result exactly the reverse of the intended conclusions, viz., that sensations, instead of being opposite to ideas, belong to the same category, or that they stand to each other in the same relations as matter\* and form, which are both *à priori* ideas, according to Dr. Whewell's doctrine ; and thus this doctrine not only is proved to be in direct contradiction with itself, but is overthrown in its very foundation.

---

\* There can be no cavilling about a distinction between the word *matter* and the word *substance*, because it is not only *substance* which Dr. Whewell considers as *idea*, but all the essential qualities of matter, space, time, number, force, and *matter* itself. See p. 80, 'Hist. of Ind. Sci.'



## CHAPTER V.

§ XVII. Examination of *transcendental arguments*, on universal and necessary truths being *à priori* ideas—Remarks of Dr. J. S. Mill—§ XVIII. Stronger arguments—Idea of Number taken as a test of the Doctrine—§ XIX. New argument showing that the idea of Number is not an *à priori* Idea—§ XX. On Mathematical truths—that their condition of real existence is to be found in matter itself—Dr. Whewell's mode of argumenting analyzed—§ XXI. Lorenz Oken's discoveries.

## § XVII.

WE will now examine upon what *transcendental* argument it has been maintained that universal and necessary truths, or ideas, cannot be acquired through the channel of our senses.

“Universal and necessary truths,” it is said, “are *those the negation of which is impossible*; and these truths exist *à priori* in the human mind. They cannot be learnt from experience.”

But it has been justly remarked by Dr. J. S. Mill, that in the instance of the axiom that two straight

lines cannot enclose a space, we can very well learn this truth from experience. For, although we cannot see these two lines farther than the powers of our organs allow, imagination can follow them in the infinite, under conditions similar to the conditions of real lines, and that thus the conclusion is an induction from observation.

#### § XVIII.

I think that Dr. Whewell's doctrine, on this point, can be opposed with even stronger arguments than those used by Dr. J. S. Mill.

Such is the position taken by the followers of Kant,—that if it is demonstrated that a single universal and necessary truth can be acquired by experience, the whole of the philosophical fabric must give way, and the effective agency of the senses be recognised as the first and necessary element of our ideas.

Now, I think it will be conceded that, in taking the notion of *number* as a test of the antecedence of the impressions of the outward objects for the

formation of ideas, it will be allowed that I enter fairly into the field against these *transcendental* doctrines.

### § XIX.

My argument ran thus :

Two apples and three apples make five apples ; an apple, a peach, and an orange make three fruits ; a partridge and a pheasant make two birds ;—three fruits and two birds make five things.

By observing these relations of things between one another, and between one group and another, we remark that there is an invariable element which is attached to these relations, viz., that apples, peaches, oranges, partridges, and pheasants ; or say, moons, suns, comets, planets, and bolides—no matter how they are arranged together (an apple with a moon, a comet with a pheasant, &c.)—will necessarily and absolutely form the same combinations of  $\bullet = \bullet$  or  $1 + 1 = 2$ ; and  $\bullet + \bullet = \bullet$  or  $1 + 2 = 3$ , &c. &c. How could we help considering from this *experience* that these relations of things are so, have

always been so, and will always be so? Could there be any one who pretends that there might have been a time when two fruits and three birds did not make as much as five things?—or that there will be a time when three comets and two planets will make more than five celestial objects?—or that such things or their equivalent, in another sidereal system, would not bear the same relations to one another?—and if there were such a being, could we not put the real objects, or their images, or their names, or *figures* representing them, before him, to show the absurdity of its being thought that these relations could have been, or could ever be, different from what they are now? Can any philosopher maintain that these relations have not, in the case above, been learnt from experience? And if such a one could be found, should we not be justified in opposing to him the same *fin de non-recevoir* which Reid opposed to those who deny first principles, “that such persons are not fit to be reasoned with?”

Instead of deducing the idea of number from a multiplicity of objects, I could shape my argument

in another form, and make it a *number* of successive impressions, thus comprising the idea of time ; but it would neither increase nor diminish the strength of the argument itself. There is not, in my opinion, a proposition more evidently false than the one that numbers are *à priori ideas*, because there is no idea which is more dependent on experience to become appropriated to the mind than that of number ; in proof of which, it is sufficient to consider the difficulty with which savages and uneducated persons can make calculations, and the great power of counting which experience gives.

#### § xx.

As to mathematical truths, when it is advanced that the proposition " that regular hexagons may be arranged so as to fill up space," may be proved, with the utmost rigour, even if there were not in existence such thing as a material hexagon ; I answer, that if you suppose an imaginary hexagon to fill up an imaginary space, you do just the same operation as the bee does when it fills up a real space with real

hexagons; for, doing a thing by figures, or representing a truth by symbols, cannot deprive either the thing or the truth of its reality.

The same argument may be applied to all mathematical and physical truths. They are only representations in the abstract. Their condition of real existence is always to be found in matter itself.

To pretend that we cannot say that "objects create ideas," because "to perceive objects we must have ideas,"\* is just falling into the radical error which I have signalized § xv., and doing what is called in the familiar adage "to put the cart before the horse." To say that necessary truths cannot be acquired by experience, is to deny the most clear evidence of our senses and reason, which teach us that *generalizations* are deduced from repeated observations of particular facts, whose knowledge cannot be acquired but from experience; and that our idea of universality and necessity is bound in the field of real or imaginable experience.

In the second volume, p. 671, Dr. Whewell, an-

\* 'Philosophy of the Ind. Sci.' p. 44.

swering a review of his works in the ‘*Quarterly*,’ attributed to Sir John Herschel, describes an idea “a certain element derived from the *universal* mode of activity of the mind when apprehending *universal* truths.” I will not fatigue the patience of the reader by a long discussion on this sentence, as obscure as the abstruse speculations so often met with in the writings of Plato, and from which Aristotle himself is not exempt. But I cannot let it pass without a remark.

According to Dr. Whewell’s doctrine, repeated in every part of his book, an idea is a universal truth. Let us see, then, how the sentence will read with replacing the word *idea* by this equivalent. We have thus:—

“A universal truth is a certain element derived from the *universal* mode of activity of the mind when apprehending universal truths.”

Which means, by eliminating the copulative and redundant elements,—

“A universal truth is derived from the mind apprehending universal truths.”

Or, more simply,—

“A universal truth is derived from universal truths.”

And, in fine,—

“A universal truth is a universal truth.”

This analysis is exact and rigorous: I shall offer no comment upon the sentence: I content myself with affirming that the same fallacious mode of argumenting can be followed up and decomposed, in this way, from chapter to chapter, throughout the whole of Dr. Whewell's ‘Philosophy of the Inductive Sciences.’

Dr. Whewell pretends (pages 28 and 29) that his view is *not contrary* to, but *altogether different* from that of Locke; that Locke speaks of *the origin of our knowledge*, whilst he (Dr. Whewell) speaks of *its nature and composition*. But Locke never denied that there was an element of the mind in every idea, since a sensation cannot become an idea but by entering into the mind. Locke only denied that which Dr. Whewell affirms everywhere, viz., that there are “universal and necessary truths, or ideas,



existing *à priori* in the mind, and which cannot be learnt from experience." This is the learned Doctor's doctrine; and what he says in the above-quoted section either has no meaning at all, or is in the most palpable contradiction to his own views.

So fallacious is the character of Dr. Whewell's argumentation, forced upon him by his unfortunate theory, that he accumulates and brings in contact, in the same page, the most opposite views; sometimes using the word *ideas* when the construction requires the word *mind*, as when he says that "our *ideas* are engaged in collecting sensations" (p. 44); sometimes maintaining exactly the reverse of the simple truth, as when he adds that "perception of objects implies ideas;" the reality being that ideas imply perception of objects; which is admitted a few lines further, when it is said that "we cannot conceive *what* space, or time, or number *would be in our minds*, if we had never perceived any thing or things in space or time." (If we cannot conceive *à priori what* space or time *would be*, how can we call space and time *à priori ideas*?) Pages 43, 44,

and 45, vol. i., are full of these contradictions; they expose the painful perplexity of the author to defend his views; and how he is reduced to equivocal concessions, such as the following: "None of the terms which express the fundamental antithesis can be applied absolutely and exclusively; the absolute application of the antithesis, in any particular case, can never be a conclusive or immovable principle." Remarks like these are so desultory and evasive, and show such a want of compactness and solidity, that to prove the untenability of the system it is sufficient to quote against them Dr. Whewell's fundamental ground, to which I must always refer, viz., "that universal and necessary truths or ideas exist *à priori* in the human mind, and cannot be learnt from experience"!

#### § XXI.

Amongst other discoveries, the result of the labours of the philosophers who have adopted the doctrines successively developed by Kant, Fichte, Shelling, and Hegel, stand on a prominent ground

those of Lorenz Oken, whose works have of late been, in part, translated by Mr. Alfred Tusk, and published under the patronage of the Ray Society. From the discoveries of this remarkable man (which he enumerates in the preface written by himself for the English edition) I take one, as an example, to test the value of the philosophy of the *à priori ideas*—that of the cranial homologies; which is thus given, in the words of Lorenz Oken himself, in the *Isis* of 1818 :\*—

“In August, 1806, I made a journey over the Hartz. I slid down through the wood, on the south side; and straight, before me, at my feet, lay a most beautiful bleached skull of a hind. I picked it up, turned it round, regarded it intensely;—the thing was done. ‘*It is a vertebral column.*’ struck me, as a flash of lightning, to the marrow and bone: and since that time the skull has been regarded as a vertebral column.”

Now, however great was the merit of this discovery, which, according to Professor Owen, would,

\* Quoted in the ‘*Athenæum*’ of October 2, 1847, p. 1021.

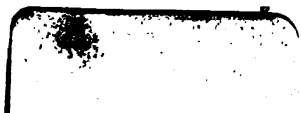
alone, have conferred immortality on the name of Oken ; it is to be wondered how philosophers can have been deluded into the belief that it was an idea *à priori*, whilst the whole process of deductive argumentation is most evident in the *naïve* narration of the author himself.

First, he *sees* a bleached skull ; then, he regards it intensely ; and, now, he perceives that it is composed of parts. A man who had never seen a vertebra or a series of vertebræ, or even a common anatomist, could not have guessed a possible relation of similarity between this head and a vertebral column. But Lorenz Oken, a man of genius, a great *comparative* anatomist, who has spent part of his life in seeing and handling vertebræ, after seeing, picking up, turning round, and regarding intensely something, which reminds him of another thing that he has very often seen before, *immediately* thinks that it is like a vertebral column, and concludes that all the heads he has seen, and which he could ever see, must be composed of parts whose type is the vertebra. All this is very natural as a pure process of induction

from facts previously observed. There is nothing *à priori* or mysterious in it, for, since the idea struck him only *after* he had picked up the skull and regarded it intensely, I cannot see how any argument could be drawn from this in favour of the doctrine, that great *generalizations* are necessary truths, *which cannot be learnt from experience.*" The wonder would have been that Lorenz Oken had discovered that the *head of the hind* was composed of vertebræ, without having seen it at all: then the doctrine of *à priori* ideas would be right.

But the case as it stands, and however little inclined I may be to speak lightly on so grave a subject, forcibly recals to my mind a classic epigram which illustrates so strikingly the ridicule that may be attached to a proposition which is exactly the reverse of the truth, that I venture to treat my readers with it who understand my native language :

L'autre jour un Romain s'en vint, fort affligé,  
Raconter à Caton que la nuit précédente  
Son soulier des souris avait été rongé,  
Chose qui lui parut tout-à-fait effrayante ?



Mon ami, dit Caton, reprenez vos esprits,  
Cet accident, en soi, n'a rien d'épouvantable ;  
Mais si votre soulier eût rongé les souris,  
Oh ! c'eût été, sans doute, un prodige effroyable ! \*

---

\* A friend of mine has sent me the following translation of this epigram, which I think will be acceptable to those of my readers who are unacquainted with the French language :—

One day came a Roman—breathless with fright,  
Hasting to Cato, to tell him his shoe  
By the mice had been eaten—quite eaten last night :  
A direful portent !—pray what must he do ?  
“ Cheer up, my good man,” old Cato replied,  
“ The fact seems to me no way so terrible ;  
Had your shoe eat the mice, it can't be denied,  
The thing would have been a portent most horrible ! ”

---

## CHAPTER VI.

§ XXII. Interpretation of the word Idea, a source of misunderstanding amongst philosophers—Hume—Reid—Dugald Stewart against Locke, Hume, &c.—That all Ideas are Sensations—His example of an intuitive necessary truth examined and rejected.

## § XXII.

THE interpretation of the word idea has often been the source of misunderstanding amongst philosophers. Much has been written upon this, even by that great advocate of common sense, Dr. Reid, and I make bold to say, to no great purpose.\* What difference can there be between “thought or operation of the mind in thinking” and “internal objects of thought which philosophers suppose”? All the criticism of Hume, Reid, Dugald Stewart, Dr. Whewell and others, on Locke’s meaning attached to the word idea is superficial and obscure, and does little credit to these profound but often prolix philosophers. Locke uses the

\* See ‘*Essays*,’ pp. 77, 78, &c.

word *idea* as the representation or graphic sign of anything about which the mind is occupied, or which forms an object of thought, whether this object is a perceived reality or a simple or complex abstraction. Certainly Locke never uses the word *idea* as having the distant meaning of the Pythagoreans and Plato, because he considers all ideas are mere representations, or abstractions, or thoughts. When it is admitted that ideas are the result of sensations, it is of no moment if we qualify an object of thought by either appellation of *idea*, thought, sensation, or any other general symbol.

To the doctrines of Locke, Hume, Berkeley, Condillac, and others, that all our ideas are sensations, and particularly to Dr. Hutchinson's assertion, "that all the ideas or materials of our reasoning are received by certain senses, internal or external; and that reasoning or intellect raises in us no new species of ideas, but only discerns the relations of those received"—Dugald Stewart objects the following argument, which would go in support of Dr. Whewell's views.



“ It is surely an intuitive truth that the sensations, of which I am now conscious, and all those of which I retain any remembrance, belong to one and the same being, which I call myself. Here is an intuitive judgment involving the simple idea of personal identity.”

This reasoning, however, only establishes that which can be judiciously contested by no one, the existence of a sentient faculty, or an intellect in man—in other words, a thinking principle, in the same time active and passive; passive when it receives impressions or sensations, active when it moves towards the objects of these impressions, or towards the impressions themselves: or, to use the energetic figure of Aristotle, when it acts *like a hand*—the hand being the organ of organs—to hold sensible objects of contemplation or their images. For intellect acts towards objects only after it has received impressions through the senses.\*

\* It is incontestably true that the senses are the first avenues of our knowledge, and that through them we become

What is the new species of idea raised by Dugald Stewart in the case of personal identity? His whole proposition may be reduced to this :—

*I am conscious of actual and past sensations.*

How can this Ego be of itself demonstrative of an intuitive truth? Hume answers this very well when he says: “When I turn my reflection on myself, I never can perceive this self without some one or more perceptions; nor can I ever perceive anything but these perceptions.” There is no ground for supposing that the idea of personal identity is intuitive, if by this it be understood that it originates from a *pure* operation of the mind; for that very idea contains as its fundamental element *an objective self*. All the propositions based upon this argument by Dugald Stewart, viz. :—that the ideas of causation, of time, number, &c., are intuitive, must therefore be rejected. The speculations of physiologists, besides, far from giving any support to the existence of some primitive idea in the human mind, consider the powers of the acquainted with external things. A. Sedgwick’s *Discourse*, &c., p. 46.

mind dependent so much on sensation, that they describe volition and sensation as intimately connected, and under the mutual dependence of one another. Thus, says Baron Cuvier: "the two faculties of sensation and voluntary motion appear necessarily connected. Even the idea of voluntary motion contains in itself that of sensation, for we cannot conceive *volition* without desire, and unaccompanied by the sentiment of pleasure or pain." \*

\* G. Cuvier's 'Comparative Anatomy,' vol. i.

---

## CHAPTER VII.

§ XXIII. That the position taken by the Author in the last chapters appears unassailable—That Dugald Stewart's *first occasions* are *first reports* of the senses.

## § XXIII.

THE position which I have taken in the preceding chapters appears to me unassailable. It is immaterial for the soundness of the arguments, whether our sensations are derived from outward objects, or from inward movements of the mind. Ideas cannot be formed without ourselves (or *transformed*); since *sensations* are themselves reports of the senses to the mind. We acquire the knowledge of inward emotions, be it even the consciousness of our existence, or the consciousness of our consciousness, from experience only. Emotions play an objective part, even when we consider them within ourselves. In our judgment of our own faculties, comprising activity of mind or will, there is an element of the out-

ward world, since they stand in the light of an object in presence of the thinking faculty as subject ; and, it may be added, that even in the contemplation of our own powers we form our judgment from a comparison with similar powers in others.

As to what Dugald Stewart says, that there are familiar notions which can neither be referred to sensation or reflection, as their *fountains* or *sources*, although the senses may furnish the *first occasions* on which they occur to the understanding\*—I would ask how these familiar notions can be ascertained not to be simple sensations, when it is granted that they do not occur to the understanding before they have passed through the general channel of the senses ? To unprejudiced thinkers, the introduction in the argument of the words *first occasions*, cannot be considered but as one of those subterfuges to which even philosophical minds are doomed unconsciously, in their infirmity, to have recourse to, in order to uphold by an artificial scaffolding an ill-constructed system. In order to prove the point, that ideas exist *à priori*

\* ' *Essays*, ' p. 107, third edition, Edinburgh.

in the mind, it must be shown that they existed *prior* to these *first occasions*; for, if this is not established, what can prevent us from adopting the most natural explanation, viz.—that these *first occasions* are in reality *first reports* of the senses?

---

## CHAPTER VIII.

§ XXIV. German and English Schools towards the end of the last century, against Bacon and Locke—That the supporters of this Philosophy are pursuing a phantom—Pseudo-substantial substratum of the Ancients—Aristotle's phantasms or species, &c. — § XXV. Kant's Doctrine analysed — § XXVI. Coleridge's doctrine—§ XXVII. How imagination can be allured into these errors—Argument framed on the representations of an orange—Its fallacy.

## § XXIV.

ENLARGING upon some ideas of the ancient Greeks, a celebrated metaphysical school rose towards the end of the last century, at first in Germany, and soon afterwards in England, in opposition to the sweeping views of Lord Bacon and Locke, which I find forcibly resumed in the cutting sentence of W. Hazlitt, "that all ideas whatever are mere abstractions, and can be nothing else."\* This school has implanted its deep roots in English metaphysics, and even in the literature of science. The supporters

\* 'Essays,' new edition, p. 160.

of this philosophy are, however, pursuing a phantom, which constantly eludes their grasp. The *substratum* upon which they have raised their philosophical fabric is, in Kant's system, a supposed reality concealed under the abstraction of the general idea of *substance*. Some of these philosophers have spent much genius in making ideas to gravitate around this extraordinary scheme; but, although their labours have thrown a great light upon the mysteries of the sensible and the intelligible world, and may have opened the way to great and bold generalizations (which, no doubt, is to be attributed to their having proceeded by the synthetic method), up to this day the idea of a noumenon remains, in itself, just as it was (except as to the name) in the time of Aristotle and Plato, viz.: an unintelligible abstraction, if considered as an intermediary idea between that of divine essence and matter; or, a useless synonymic expression, if offered as an equivalent of the idea of Almighty himself.

The following extract will show the opinions of the ancients on this point. I do not think that



modern philosophers, of the school of Kant and Coleridge, have advanced a step beyond Aristotle, and written anything more clear or decisive on this pseudosubstantial substratum.

“ Now, summarily recapitulating what has been said about the soul, we again say that the soul is, in a certain respect, all beings ; for beings are either sensibles or intelligibles ; and science is, in a certain respect, the objects of science ; and sense, sensibles. But in what manner this takes place it is necessary to investigate. Science, therefore, and sense are divided into things ; those which are in capacity into things which are in capacity, and those which are in energy into things which are in energy. But the sensitive and scientific powers of the soul are those things in capacity, viz.—the one is the object of science, but the other that which is sensible. It is necessary, however, that these powers should either be things themselves, or forms. But they are not the things themselves. For a stone is not the soul, but the form of the stone ; hence the soul is, as it were, a hand ; for the hand is the organ of organs ; intellect is the form of forms ; and sense is the form of

sensibles. Since, however, there is nothing besides sensible magnitudes separate ; in sensible forms there are intelligibles, as well those which are predicated in ablation, and those which are the habits and passive qualities of sensibles ; and, on this account, he who has no sensible perception of anything can neither learn nor understand. But when intellect contemplates, it is necessary that, at the same time, it should contemplate a certain phantasm ; for phantasms are sensible objects, except that they are without matter. The phantasy, however, differs from affirmation and negation ; for the true or the false is the connexion of mental conceptions.”\*

This was the theory of the Peripatetic school ; and the Epicureans differed from the Peripatetics in this, that they considered the phantasms to be composed of an æthereal matter.

#### § XXV.

I shall now introduce here a short analysis of the

\* ‘ Aristotle on the Soul ’ ch. ix., from Thomas Taylor’s translation.

development of these ancient ideas by the celebrated German philosopher from whom Dr. Whewell has taken the greater part of his views.

First, Kant premises, that the objects of which we take cognizance, through our senses, offer us the images or phenomena of real things, but maintains that these images or phenomena are not the things themselves; and that, although these things have a real existence, we know nothing of their intimate nature. These things, which form the *unknown* substratum of natural phenomena, he calls *noumena*, or collectively the *noumenon*.

“When we consider,” says Kant, “objects of sense as mere phenomena, we hereby allow at the same time that they bottom upon a thing in itself, though we know it not, as to its internal nature or essence, but as to its phenomenon, that is, the way in which our senses are affected by this *unknown something*.” \*

Kant defends very warmly his system from the imputation of pure idealism, which was directed

\* Prolegomena to ‘Metaphysic,’ p. 95.

against it by the school of Bacon and Locke, and even by the Sceptic school. He says:—

“ Idealism consists in the assertion that there are none but thinking beings ; all other things, which we believe we perceive by intuition, are nothing but representations in the thinking beings, to which, in fact, no object without these corresponds : whereas I say, that things as objects of our senses without us are given us, but we know nothing of what they may be in themselves, but their phenomena, that is, the representations which they occasion in us by affecting our senses : consequently, I certainly grant that there are bodies without us, that is, things which, though it is quite unknown to us what they are in themselves, we know by the representations which their influence on our sensitivity procures us, and to which we affix the denomination of a body, which word, therefore, signifies merely the phenomenon of that object which is unknown to us, but not the less real. Can this be termed idealism ? It is the very contrary.” \*

\* Prolegomena to ‘ Metaphysic,’ p. 54.

And further:—

“The existence of the thing that appears is not destroyed, but it is shown that we cannot *cognise* at all by the senses how it is in itself.” \*

“I leave,” continues Kant, “the things which we represent to ourselves by sense their reality, and only limit our sensual intuition of these things to this, that they represent in no point, even not in the pure intuitions of space and time, anything more than merely phenomena of those things, but never their quality in themselves.”

Then Kant again strongly insists that his transcendental idealism cannot be confounded “with the empirical idealism of Descartes, or with the *mystical and extravagant idealism* of Berkeley:” against which (he adds), “and other similar chimeras,” his criticism “rather contains the proper antidote.” But at the same time he very strenuously maintains that “in all substances the subject itself, that which remains after all the accidents or adjuncts (as predicates) are separated from it, consequently

\* Prolegomena to ‘Metaphysic,’ p. 55.

that which is substantial itself, is unknown to us." \*

" Our conceptions of substance, of power, of action, of reality, *and others*, are quite independent of experience, contain no phenomenon of sense, and seem in fact to refer to things in themselves—*noumena*. . . . . The conception of cause contains a rule, according to which *one state follows another necessarily*; but experience can only show us that one state of things often, and, not to say the most, commonly follows another, and therefore yields neither strict universality nor necessity.

" Hence the conceptions of the understanding seem to have too much sense and matter for the mere use of experience to exhaust all their determinations, and thus the understanding insensibly erects for itself, besides the house of experience, a much more extensive building, which it fills with nothing but creatures of thought, without once taking notice that it has lost itself, with its other-

\* Prolegomena to 'Metaphysic,' p. 60.

wise right conceptions, beyond the bounds of their use." \*

Kant proclaims the ideas of space and time apodictical and necessary, and considers them as mere forms of our sensitivity, by no means adhering to things in themselves, but which must precede all perception of real objects.†

From pure mathematics Kant descends to pure physics, and contends that there are universal principles of physics—that *substance* is permanent, and that all which happens is always previously determined by a cause, according to constant laws, &c.: finally, that there are actually universal laws of nature, which subsist totally *à priori*.‡ He concludes that "the principles of possible experience are at the same time universal laws of nature, which *can be cognised à priori*."§ And, although admitting the principle of Hume, that impressions precede ideas, Kant maintains that the real element of ideas

\* Prolegomena to 'Metaphysic,' p. 97.

† *Ibid.*, pp. 45, 46.

‡ *Ibid.*, pp. 63, 64.

§ *Ibid.*, p. 81.

is not the impression, but that the idea exists primitively in the mind, and gives the shape or the form to the impression.

### § XXVI.

Let us now see how Coleridge proceeds to extract the same ideas from the deep and vivid flashes of his fecund imagination.

“ Hast thou ever raised thy mind to the consideration of existence, in and by itself, as the mere act of existing? . . . .

“ It is! . . . . Whether a man, or a flower, or a grain of sand; without reference, in short, to this or to that particular mode of existence? . . . .

“ If thou hast indeed attained to this, thou wilt have felt the presence of a mystery, which must have fixed thy spirit in awe and wonder. . . .

“ Not to be, is impossible. To be, incomprehensible. . . .

“ The power which evolved this idea of being—being in its essence, being limitless, comprehending its own limits in its dilatation, and condensing itself



into its own apparent bounds—how shall we name it? . . . . What is it? whence did it come?”

This is magnificent, as evoked from the simple perception of individual objects in the immeasurable whole, and from the relations of these objects with the all-embracing faculty of the human mind. But how is it that from the contemplation of individualities, singled out by the senses, and perceived as a part of a harmonious whole, Coleridge falls back, denies his own impressions, and refuses to recognise the very origin of his inspiration, *i. e.* the reality of the senses and the sensibles—his own perceptions of a man, a flower, a grain of sand, from which he has abstracted the general idea of existence? and why does he say, “The idea itself, what is it? whence did it come? In vain would we derive it from the organs of sense; for these supply only surfaces, undulations, phantoms: in vain from the instruments of sensations; for these furnish only the chaos, the shapeless element of sense”? \*

\* ‘The Friend,’ essay xi.

The inconsistency of these aspirations is too apparent: it is first premised that the mind takes cognisance of outward objects, and is in contact with them; then these objects are *immaterialized*, and transformed into a *pure idea*, entirely independent of the senses and of the objects themselves, which have in reality furnished the elements of the abstraction. This is very beautiful as poetry, but there is no truth in the reasoning—no more, and perhaps much less, than in the phantasm or the phantasy of Aristotle.

We cannot arrive at the idea of the supreme intellect, through a supposed substratum lying under the idea of substance, between the idea of the supreme will and that of matter; for such a substratum has not any other origin than the confused image of some *material* residue of the qualities of a real object. The fact which lies at the bottom of this fallacy is the impossibility of entirely erasing from the mind a received impression.

The following argument will show how easily imagination may be allured into errors of this kind.

## § XXVII.

“ An inductive philosopher, says J. W. Semple,\* declares that the representation of the orange is entirely framed by the impressions made upon the senses from without. Now, if this was the case, then (Kant remarks) by destroying the conception, *i. e.* abstracting colour, smell, weight, flavour, and *so on*, the whole representation ought, to be abolished. . . . . Let us try the experiment, at least abolish it in thought; and it is immediately observable, that the space it occupied will still remain; the vacant form of the annihilated body still presents itself; nor can I by any force of imagination obliterate this part of the perception.”

Unfortunately for Kant's argument, it happens that, in the enumeration of the qualities to be destroyed, in thought, there is neither that of bulk or space; and it is represented that these very qualities or their equivalent, viz. the *vacant form*, will still remain in the mind. Now, we ask, if you abstract

\* Preface to Kant's 'Metaphysic of Ethics,' p. 31.

also these qualities or the vacant form, what will remain? It might be pretended (although I think it would be a cavil) that the form and bulk are understood in the "*so on*" or the other unmentioned qualities. This, then, would come to asserting that the form and the bulk are not effaced after having been abstracted; or at least that they cannot be abstracted, like other qualities, and remain *perforce* in the mind. But if the latter is the case, it does not prove that the ideas of form and bulk originate "from *à priori* action of the mind," because the argument itself assumes that the orange has first been offered to the perception of the senses: it only shows that our will does not possess the power of entirely erasing from the mind an object with which it has been in contact.

I do not make a doubt that the difficulty we find in dismissing the ideas of bulk, figure, and other essential qualities, in comparison with the relative facility of abandoning the ideas of accidental qualities (such as sound, smell, taste, colour), is in reality the foundation of this fallacy.

## CHAPTER IX.

§ XXVIII. Real character of the Physical Philosophy of Kant—Monads of Leibnitz—Pure idea of Substance—The Noumenon—Kant's ground in its simplest form—His contradictions—How he tries to rectify them—His idea of a boundary between phenomena and noumena—Indistinctness of this line—Judgment on his System—V. Cousin and De Rémusat.—§ XXIX. That Dr. Whewell has left aside the idea of the Noumenon—His endeavours to establish the same antithesis between necessary and experiential Truths as between Thoughts and Things—That his Doctrine resolves itself into pure Spiritualism.

## § XXVIII.

THE real character of the physical philosophy of Kant is an ineffectual attempt at *substantialising* the monads of Leibnitz;\* he tried to fix upon the intel-

\* I cannot resist quoting here the following beautiful and very instructive passage on the origin of Leibnitz's Monads, as explained by the very interesting book of Mr. J. Mackie :—

“ Whilst residing at Mentz, Leibnitz undertook, at the request of his patron, Baron Von Boineburg, to refute the Cartesian doctrine, that Matter and Spirit were two different substances, the essence of the first consisting in extension, and that of the second in thought. This was done with the design

ligible monad what may be called, in his own phraseology, the *pure idea* of substance, that is, a supposed

to prove the possibility, if not the actual truth, of the theological dogmas of the real presence and transubstantiation; and thereby promote an union between the Lutheran and Catholic churches. Leibnitz accordingly discarded the atoms of Descartes as the primary elements of bodies; or rather, he attributed to them a spiritual nature. Thus in 1671 he wrote to Anthony Arnaud 'that the essence of matter does not consist in extension; that even the substance of matter is without extension, and not subject to the limitation of space.'

"But Leibnitz was then far from having attained the view of Substance which afterwards appeared to him satisfactory and final.....as he advanced in the study....he considered the *supersensuous substance* as the principle of motion in the material world, and called it *power*. This moving power was original and really existing, while the things moved by it had a merely phenomenal or apparent existence. In these views of Leibnitz, the idea of Substance was combined with that of Motion, but afterwards he relieved the first idea of this limitation. Forming a more purely abstract notion of Substance, he pronounced it to be energy, in general uncreated, indestructible, unlimited, whose activity is in itself, and whose qualities are deducible from the very nature of its own idea. But individualized, it exists in the form of souls or monads. Substance, in general, then is God, the original monad; and from him are derived all individual substances, which together constitute the created universe. These particular monads independent of Time and Space, which are mere relations of simultaneous and successive existences, comprise

matter deprived of sensible qualities, but which was nevertheless the real ground of the sensible. In this there was nothing very new, for Leibnitz's monads were but a modernised reproduction of the universals of the Pythagorean and Platonic schools, according to which the objects of senses were only forms, images, or shadows of universal and eternal natures or ideas. It was from these universals that Aristotle derived his phantasms or species.

Kant tried to place his physical ground between

whatever is real and substantial in nature. All else is but appearance, phenomenon, 'a regulated dream.' Each of the monads is placed by God in relations to the universe. Each is perceiving and striving to accomplish, by virtue of a pre-established harmony of things, the aims of the infinite whole. The different monads, therefore, may be said to be so many mirrors, reflecting the totality of things.....Each monad may be represented as an eye, looking at the whole creation from its particular point of view. In this different degree of perfection, or different mode of reflecting the infinite, consists the individuality of the different monads."

That which distinguishes the spirit of man from the souls of the lower animals, is its knowledge of necessary and universal truths. These make science possible, and elevate man to the knowledge of himself and of God.—From Leibnitz's *Life*, by John Mackie, 1845.

the ether of the atomists and the pure spiritualism of Berkeley, in order to avoid the scepticism of Hume, which was his *bugbear*.\* He therefore invented the *noumenon*, that is to say,—*a substance which is not a substance*; and this he placed between the supreme intellect and the sensible world.

In its simplest form Kant's ground could be reduced to this :—

*Axiomatic truths exist originally in our mind and are not acquired by experience, because they form the essence of the noumenon, and the noumenon is inaccessible to our senses, although it is accessible to our mind.*

But on this point Kant is in a perpetual contradiction with himself, for he contends and insists that

\* After having written this, I remarked the following judgment on Kant, in Mr. Cousin's 'Lessons,' (p. 18). I reproduce it here for the sake of putting in parallel two independent opinions, which, if they are well examined, will be found to be nearly similar; leaving entirely to my renowned countryman the priority which belongs to him.

"Tout l'effort de Kant est de placer la philosophie entre l'ancien dogmatisme et le sensualisme de Locke et de Condillac, à l'abri des attaques du scepticisme de Hume."



"the substantial (or noumenon) never can be *thought* of by *our understanding*, how deep soever it may penetrate, *and even if all nature were unveiled to it!*"\*

To get rid of these contradictions (often repeated in his long and very diffuse dissertations), and which Kant very well perceives, he ingeniously imagines that, *in our reason*, both phenomena and noumena are comprised together, and then he says:—

"The question is, how does reason proceed, to bound the understanding relative to both fields? Experience does not bound itself . . . . that which limits it, is the field of the pure beings of the understanding (noumenon). This, so far as the nature of these beings is concerned, is an empty space for us. . . . But as a *boundary* itself is *something positive* . . . it is a *real positive cognition*, which reason acquires by enlarging itself to this boundary, yet so as not to seek to pass it."

But what solidity could we attribute to a philosophical system built upon the indistinct line

\* Prolegomena to 'Metaphysic,' p. 125.

† *Ibid.*, pp. 169, 170.

thus traced between the *absolutely unknown* field of the noumenon and Kant's phantasmatic world of phenomena; and how could the positive knowledge of universal and necessary truths rest upon such an undefined notion? These are difficulties to which it would be impossible to give a satisfactory answer.

All that can be said of this system is, that it is ingenious and poetical (some might call it profound), and may have a great value with persons who look only at *the mystical* of things; but severe thinkers will perhaps opine, that sound arguments cannot be replaced by daring metaphors. As for myself, I cannot absolve Kant's doctrine of its contradictions; and, on this account, and with due reserve and respect for his admirable psychological and moral works, I quite agree with M. Victor Cousin's judgment, that nihilism is the only philosophy which could be deduced from the '*Critic of pure reason*;' and I agree also with M. De Rémusat, when he says—"La philosophie de Kant est en-deça de la raison humaine." \*

\* 'De la Philosophie Allemande,' &c., p. 206.

## § XXIX.

It is but justice to Dr. Whewell to say that he felt the inefficacy of so vague and so indefinite a ground. He, therefore, put aside the idea of the noumenon and considered phenomena as resting simply upon a *permanent* substance. But then, as he had no intermediary line to fix the basis of necessary truths upon, he was in the alternative, either of entirely rejecting the idealism of the Kantian philosophy, or of placing the ground of universal and necessary truths in the human mind itself: he adopted this last view.

In his system the fundamental ideas, ungenerated by experience, embrace such a vast field, that one cannot possibly see what part of knowledge remains to be conveyed to us by the senses. The *à priori* ideas enumerated, page 80, are the following :—space, time, number, force, matter, cause, externality of objects, media of objects, polarity, chemical affinity, substance, symmetry, resemblance, natural

---

affinity, assimilation, irritability, final cause, historical causation.

Gravitation was left in the first edition as a matter of doubt, but in the Essay III, published since, the author *declaring* that all matter is heavy, this gives to gravitation also the character of a universal and necessary truth.\* So that it appears that the only contingent (now called experiential) truths, that is, truths which do not exist *à priori* in the mind are those whose character of permanency is not yet sufficiently fixed for them to be classed amongst necessary truths. Thus, that sugar and salt will dissolve in water—that plants cannot live without light—that all the animals which chew the cud have the divided hoof—that water expands when it crystallizes—these (and they are the only given examples!) are contingent or experiential truths—that is, truths which are not known *à priori*, but

\* I must remark here that I cannot admit that gravitation is essential to matter—which Newton himself did not assert in his ‘Principia.’—I shall return to this subject in my second Essay.

may be acquired through the senses, and this only because the contrary of these truths (a very questionable assertion) is not demonstrated to be impossible! \*

It is to be remarked, however, that Dr. Whewell says—"Experiential truths are those that we know by experience only ; and, that we know in this way, all that we do know in chemistry, physiology, and the material sciences in general. . . . We may take elementary astronomical truths as the most familiar examples of experiential truth in the domain of sciences." †

Thus the learned Doctor pursues his system in

\* I should think that as often as you put a lump of sugar in a glass of water, it will make a glass of *eau sucrée*, and that since the origin of sugar the case has been so, and will always be so as long as sugar is made ; and that a lump of salt will always dissolve in a like manner. These are universal and necessary truths of their kind. It appears to me that "the constancy of these relations (to use the language of Hume) forms the very essence of necessity, and that we have no other idea of it" . . . . whatever Dr. Brown may have said to the contrary.—See Hume, Edinb. ed. 1846, vol. iv., p. 112.

† Vol. i., p. 20.

G



the attempts to establish the same antithesis between necessary and experiential truths, as he established between thoughts and things; but he fails from the same reasons as I have given in § xv.

Necessary truths are, in his view, the equivalent of thoughts; experiential truths the equivalent of things; and both exist independent of each other, or forming an antithesis. But we have seen that things, being independent of thoughts, do not make thoughts independent of things; and, for the same reason, experiential truths being independent of necessary truths, do not make necessary truths independent of experiential truths; or, in more intelligible language (since necessary truths are ideas, and experiential truths are facts) facts being independent of ideas do not make ideas independent of facts. It is plain, in fine, that in the same manner as facts, or sensations, are the basis of ideas, experiential truths are the basis of necessary truths. But, as Dr. Whewell maintains that necessary truths exist *à priori* in the mind, and cannot be acquired from experience, it





follows that the only general conclusion which can be deduced from his doctrine, is, that there are not, in reality, two co-ordinate elements of our knowledge; but only one, the *à priori* element; and that, consequently, his doctrine resolves itself into mere idealism, nearly similar to that of Father Mallebranche; and is only a scientific version, arranged for our time, of the universals, or eternal ideas, of the Platonic school.\* This doctrine, therefore, is making philosophy retreat two thousand years backwards. But it has, upon the Platonic scheme, the great disadvantage of being in opposition to the realities and knowledge progressively evolved by the human mind during the last twenty centuries—an opposition so much more noticeable that the talented Doctor has embodied in his doctrine the most correct results of inductive sciences, of which he is himself a perfect master and leading promoter; marking

\* I think I am so much the more justified in this appreciation of Dr. Whewell's philosophy, that the reproach of idealism was applied even to the doctrine of Kant by my distinguished countryman, M. C. De Rémusat, in his introduction on the 'Doctrines of German Philosophy,' p. xviii.

thus with the stamp of his profound learning and graphic eloquence the faded and almost forgotten remains of a worn-out, long decayed, and unrestorable system.



## CHAPTER X.

§ XXX. Fichte — His Spiritualism — His Doctrine nearly allied to that of Berkeley—§ XXXI. Its fallacy on Sounds and Colours—Reality and entity of outward objects—§ XXXII. The author's interpretation of the *Ego* and the *Non-ego*—§ XXXIII. On the *oneness* of the idea of Perception-of-matter — Axiom-makers — Perception, what it implies—Strong argument against the Perception-of-matter Philosophers.

## § xxx.

FICHTE appears also to have erased from his philosophy the inconsistency of a pseudo-substantial noumenon; maintaining that "there is no groundless and arbitrary medium between the true and essential nature of *divine life* and its manifestations." \* His doctrine is about the same as that of Mallebranche, and comes very nearly to that of Berkeley; viz., that we have no evidence whatever of the real existence of the material world; a view adopted by many English and German philosophers of this day,

\* Fichte on the 'Nature of the Scholar,' p. 136.

and according to which "the whole of the material world is not what it appears to the uncultivated mind, but can only be considered as the manifestation of a divine idea concealed behind natural appearances." \*

We cannot pretend, it is said, "that anything exists without, at all like the impressions of sounds and colours within." † Whence it is argued that sensations being different from the objects which produce them, we have no proof whatever that they have the material existence which is attributed to them by our senses; and that it only remains, therefore, to consider them as manifestations of the divine idea itself, and not real things distinct from it.

Now, to show the error of this, it is sufficient to analyse the facts of sensation.

### § XXXI.

First it must be allowed that it is certainly not to the rays of light that we give the name of colour;

\* Fichte on the 'Nature of the Scholar,' p. 124.

† See 'Tait's Edinburgh Magazine' — Review of Mr. Morrel's 'Philosophy,' vol. xiv., p. 698.

nor to the pulsations of air that we give the name of sound ; because the great mass of men do not know that colour is composed of rays, sound of pulsations ; since they would not understand you if you were to say to them, I have seen a ray of green—I have heard an aërial pulsation. But reason, science, experience, and cultivated common sense inform us that colour is produced by the contact or action of *material* light coming from an object to our eyes ; that sound is produced by the vibration of the air, acted upon by an object in rapid motion. We know these objects not only from one impression made upon one of our organs, but from many impressions ; and from judgments established upon them by *our own* mind, and by other minds, which all invite us to attribute to the same objects a character of individuality and of entity which they possess in reality, independently of our seeing and hearing them ;\*

\* “ C’est, en effet, une loi à *priori* de la pensée et la plus universelle de toutes, non pas que les choses sont pensées comme elles sont pensées, mais qu’elles sont pensées comme

which they possessed before we were born into the world; which they will retain when we shall be unable to see and hear any more; and which they would still possess, if the whole of the human race, together with the whole of the organized beings on this earth, should disappear and be annihilated by some great natural catastrophe, which we can conceive as possible.

It is to the collection of these individual and special objects of our sensations that we give the name of material world. To deny the real existence of the material world, therefore, is to deny the real existence of that without which we could never have had any sensation at all. That the material world is a manifestation of a *divine idea* does not imply that the material world has no real existence; because the organic world is not the condition of existence of the inorganic world, although the inorganic is the condition of existence of the organic.

elles sont."—(*De la Philosophie Allemande*, par C. De Rémusat, p. xxi.)

## § XXXII.

From the considerations above, I interpret the *ego* as an equivalent of the thinking faculty in man, and the *non-ego* as representing the objective existence of the outward world in relation to man. And it is evident to me that the two conceptions of the *ego* and *non-ego* are only indissoluble inasmuch as the *ego* (or thinking man) cannot exist without the *non-ego* (or outward world). But it is against all historical and geological facts, as well as against the plainest rules of common sense, to pretend that the *non-ego*, or outward world, could not exist, or did not exist, without the *ego*, or man, or an organic nature.

## § XXXIII.

It is from not perceiving this, that philosophers maintain the oneness of the idea of *perception-of-matter*.

“No power of the mind,” says a reviewer of Thomas Reid’s works, “can divide into two facts, or two existences, or two thoughts, that one pro-

minent fact, which stands forth in its integrity as the *perception-of-matter*.”\*

The very form in which this is said shows that there is no truth in it; because when a writer cannot find a solid argument in support of his opinion, he inevitably forces the view upon himself by arranging it into an axiomatic form; and then, in order to fasten the axiom of his creation on the mind of his readers as strongly as he has riveted it on his own mind, he produces it as an incontrovertible dogma. Superficial readers of course will follow him, because they cannot stand against the tyrannical expression “no power of the mind”! but independent thinking spirits will not take the yoke; and, after analysing the assuming phrase, they will find that it is only the impossibility of enunciating *proofs* which has forced on the writer the form of a violent asseveration.

Perception implies a mind on one side, an outward world on the other side, and senses between the two. Can the writer alluded to prove that the

\* ‘Blackwood’s Magazine,’ p. 255, August, 1847.

outward world was not a reality before he could himself have the perception of its existence, and that the outward world will be annihilated when this philosopher's perception dies? and can he prove that the solid crust of the earth was not created before man could stretch down his foot to stand erect upon it? \* Surely he could not do this without depriving well understood expressions of their generally adopted acceptation, or cavilling upon the real meaning of words.

\* Let any Hegelian philosopher answer this argument.

---

## CHAPTER XI.

§ XXXIV. Disputes on the meaning of words—Philosophers in contradiction with themselves—Berkeley—Denies the existence of the material world—Misinterpreted by Dr. J. S. Mill—Attacked by Kant—§ XXXV. Berkeley's argument put in a strong light—That he has inclosed himself in a vicious circle—His argument is superficial—§ XXXVI. How can the problem of the materiality of Matter be solved?—§ XXXVII. How Berkeley puts himself in contradiction with his Doctrine, and changes his ground—That the material world is the designed object of the intellectual—That the inorganic world has an existence independent from the organic.

## § XXXIV.

It has been long observed that most of the discussions which take place amongst philosophers, and principally metaphysicians, are merely disputes on words, and only happen because they do not understand each other's meaning; and this will be the most readily believed when it is remarked, that it even frequently happens that authors of philosophical systems do not explain to themselves the real signification of their own expressions; and put



themselves in direct contradiction with their own views, without even perceiving it.

Such appears to be the fact in the case of Berkeley's scheme. He denies the independent existence of an external world, as it will clearly be seen from the following quotation, which could be supported by many other similar passages of his works :—

“That neither our thoughts, nor passions, nor ideas, formed by imagination, exist without the mind, is what everybody will allow; and it seems no less evident, that the various sensations or ideas imprinted on the sense, however blended or combined (that is, whatever object they compose), cannot exist otherwise than in a mind perceiving them. I think an intuitive knowledge may be obtained of this by any one who shall attend to what is meant by the term *exist*, when applied to sensible things. The table I write on, I say, *exists*. That is, I see and feel it; and if I were out of my study, I should say it *existed*—meaning that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There is an odour—that is, it was

smelled ; there was a sound—that is, it was heard ; a colour or figure—and it was perceived by sight or touch. That is all I can understand by these and the like expressions ; for, as to what is said of the *absolute existence* of unthinking things, without any relation to their being perceived, that seems *perfectly* unintelligible. Their *esse* is *percipi* ; *nor is it possible they should have any existence out of the minds which perceive them.*”

It is, therefore, with perfect justice that Berkeley has been interpreted by Reid, D. Stewart, Dr. Brown, and others, as having entirely denied the real existence of matter ; and Dr. J. S. Mill lays himself open to the reproach of misinterpretation, when he accuses these philosophers of want of profundity, for not having comprehended the distinction between the noumenon and the phenomenon. So far from his having admitted the existence of a noumenon, Berkeley, as we have shown before, was attacked and ridiculed by Kant precisely on account of his pure spiritualism, and on his non-admitting a substantial ground of phenomena, or a noumenon.

## § XXXV.

To show Berkeley's argument in a stronger light, I think it may be enunciated thus:—

We receive, through one or several senses (let it be touch and sight), the impression of an external object; that impression produces a sensation, which determines in the mind a particular idea: let it be a pebble; it is seen and felt. Now, what is it that we call a pebble? It is the idea determined by the sensation; which sensation has been produced by the impression; which impression has been the result of the action, or contact between our senses and the object which we have called a pebble. As it is simply through the testimony of our senses that we know that pebble, and as it is this very testimony that we recall to our memory by the expression, "this pebble"—Berkeley says that we cannot pretend that the pebble is anything but an impression, and has any existence out of our mind.

To this argument, which I have made as strong

as I could, in favour of Berkeley's scheme, I will now oppose the following remarks:—

There are two conditions which are indispensable to the formation of the idea of the pebble—first, our senses; secondly, the pebble; and this is premised in Berkeley's argument, since it is comprised in the pronoun *I* and in the word *table*. But the formation of *the idea* is not an absolute necessity. Our senses and the pebble (or the table) existed separately before they became in contact, and they might have never become in contact. Suppose that no hand has ever touched, no eye ever seen, a particular stone; and that no one will ever see or touch that same stone; suppose it lies one hundred thousand feet deep under the surface of the earth, or in the centre of the moon; will the existence of this stone be less real? No one can say this.

The existence of a particular stone is a necessary condition of our having the idea of that stone; but our not having the idea of the stone is not a proof of its non-existence. The stone may exist without our having possibly any idea of it. The argument of

Berkeley goes only to show, that the stone *which we have seen* does not exist without our having seen it, which is a truism.

This reasoning may be applied to the whole of the impressions produced on our senses by the objects of the outward world, and shows that Berkeley has inclosed himself in a vicious circle. His argument, besides, is superficial, and does not reach the substance of the question.\*

#### § XXXVI.

If we want to know the real nature of a stone, we must examine the stone. We must look for the solution of the real existence of matter in matter itself. We must divide, calcinate, dissolve, analyse, and reduce the stone to its simplest elements. We must examine these elements until we arrive at the smallest appreciable and imaginable division, and then consider what may

\* I think I may venture to say that Berkeley's argument is identical with the doctrine of Schelling and Hegel.

be the nature of this ultimate fragment or atom. Then, only, can experience and reasoning stop, and the problem of the real existence of matter be solved.

Thus has the question of the *materiality of matter* been considered by the Hindoos and the Grecian philosophers, and, after them, by Boscovich, Dr. Daubeny, Mr. Faraday, and others; and it will be my object to investigate it in the same manner in another part of this book. The solution of this problem falls entirely under the dominion of our senses and reasoning faculties; we cannot go further than this; and Berkeley's error consists in the vain attempt to discover this solution beyond the limits of our own powers.

#### § XXXVII.

The circumstance which has occasioned different interpretations of Berkeley's doctrine, and given rise to various opinions on his real views, is, that, in order to answer the objections which were raised against him, he produced such explanations that, without

perceiving it, he puts himself in contradiction with what he had advanced before. This will be seen by the following passage:—

“ I am of a vulgar cast, simple enough to believe my senses, and leave things as I find them. It is my opinion, that real things are those very things I see, and feel, and perceive by my senses ; that a thing should really be perceived by my senses and at the same time not really exist, is to me a plain contradiction. When I deny sensible things an existence out of the mind, I do not mean my mind, in particular, but all minds. Now, it is plain they have an existence exterior to my mind, since I find them, by experience, to be independent of it. *There is, therefore,* some other mind wherein they exist during the intervals between the times of my perceiving them ; as likewise they did before my birth, and would do after my annihilation. And, at the same time, it is true with regard to all finite created spirits ; it necessarily follows, that there is an omnipotent eternal mind which knows and comprehends all things, and exhibits them to our view in such a manner,

and according to such rules, as he himself hath ordered, and are by us termed the laws of nature."

Here Berkeley has evidently changed the ground of the question. The table is no more a simple impression, a perception, and finally an idea, as it was in the first quotation. But the absolute maxim, *esse* is *percipi*, is virtually abandoned, the objective existence of the material world is fully acknowledged as a reality; and on a parallel line to this reality, an omnipotent eternal mind is assumed as the intelligent ruler of nature. I say *assumed*, because there is no connexion between the two parts of Berkeley's argument, except the connexion which he has forced on his own mind by using the copula, "*there is, therefore,*" which he was not authorized to do by the shape of the argument itself, the propositions being two independent ones. But what I want only to establish by the preceding remarks is, that Berkeley himself was obliged to give up his doctrine of the *oneness of the idea of the perception-of-matter*, at least, inasmuch as it refers to the human mind.



That the material world is the designed object of the intellectual world is a self-evident truth. But that the inorganic world has an existence independent of the organic is no less self-evident; besides it being possibly demonstrable, as a matter of fact, that, at least on this earth, the inorganic existed before the organic; and that, therefore, the former has, historically, as well as naturally, an independent existence.

---

## CHAPTER XII.

§ XXXVIII. The Kantian Doctrines contrary to the evidence of our senses and reason—Sensations precede Ideas—Soul of Man—At first a blank sheet prepared by the Divine hand—Instincts, desires, and affections cannot be assimilated to an intuitive knowledge of great generalizations—  
§ XXXIX. A short theory of the Formation of Ideas.

### § XXXVIII.

THE Kantian doctrine rests on the supposition that universal and necessary truths exist in the human mind, independently of its receiving, through the senses, the impressions of the outward world, and that these impressions are only *occasions* of the ideas; or, to use the expressions of J. W. Semple, Kant's English translator and commentator, this doctrine rests upon the predicate that "what truth, soever, is necessary and of universal extent, is *derived to the mind* from its own operation, and does not rest on observation and experience."

This is no better than an unwarranted denegation

of the direct evidence of our senses, and the testimony of our reason. For how can it be pretended that a truth is not *derived to the mind* from experience, when it is incontestable and *uncontested*; that the facts which relate to this truth are, from the first instant of the birth of the human individual, introduced successively into his mind, up to the time when he can form the idea that they belong to a universal and necessary truth?

Sensations precede ideas.

"All the perceptions of the human understanding," says Hume, "resolve themselves into impressions and ideas. . . . Ideas and impressions appear always to correspond to each other; a convincing proof that the one are the cause of the other; and the priority of the impressions is an equal proof that our impressions are the causes of our ideas, not our ideas of our impressions."\* What Hume says of *impressions*, I would say of *sensations*; because the expression comprehends more distinctly our emotions and feelings as objects.

\* 'Hume on the Understanding,' Edinb. ed. 1825, p. 15.

The soul of man is a blank sheet, prepared by the divine hand to receive the images of things.

It develops and expands by entering into contact with external nature.

No operation can be traced in the mind before it has received the light or impress of outward objects.

No doubt the germs of instincts, desires, and affections exist originally in the undeveloped mind ; for, as Professor Sedgwick justly remarks : " If the senses be the first link connecting the soul with the world without, it is equally certain that they are no sooner excited, than affections begin to show themselves ;" \* but it is against the dictates of common sense and unsophisticated reason, to assimilate the unconscious, and almost imperceptible, initiative of these instincts, to an intuitive knowledge of those great generalizations, the nature of which, inaccessible to the immense majority of mankind, excites a conflict of opinions amongst the most gifted and cultivated minds. Nor can it be believed, that any

\* Professor Sedgwick's 'Discourse on the Studies of the University,' p. 54.

mental operation taking place amongst these various instincts, to the exclusion of the outward world, could give us the knowledge of general or universal laws, when *it is the special and necessary object of these same instincts to invite and to command our acquaintance with the individual facts whose assemblages and relations compose these laws.*

### § XXXIX.

Our senses form the natural link between two parallel realities, viz., our mind and the external world.

A sensation has its first roots in the external world, its second roots in the mind.

To say that ideas are the active element of our mind, is simply to deny the special functions of our senses, in order to assume that the external world exists in our mind independently of the sensation.

The senses are, at first, passive in relation to the external world, and the mind passive in relation to the senses.

But in the same manner as a photographic plate

appropriates the image of an object, the mind possesses the power of appropriating sensations.

An appropriated sensation is what we call an idea.

After having received ideas, or, which is the same, appropriated sensations, the mind becomes active towards the sensations or the ideas themselves, and combines, arranges, co-ordinates, divides, multiplies, and classes them; and through them re-acts upon the senses, and these upon the outward world.

This is a short but I think a clear and natural theory of the formation of ideas.

---

## CHAPTER XIII.

§ XL. Origin of our ideas—§ XLI. That a truth is true in itself—What are universal truths—That there is no difference between truths—Truism about necessary truths—That there are not two opposite sorts of truths—That all truths are experiential truths—No antithesis between truths—§ XLII. All truths are founded on facts—Classes of individual objects—Motions of objects—Natural laws.

### § XL.

As all our ideas are derived from sensations, either directly or from arrangements and classifications, operated by the powers of the mind amongst the sensations or the ideas themselves, it follows that all our knowledge is founded on experience, and that it is from experience only that we learn truths.

### § XLI.

A truth is true in itself—it is true independently of ourselves or of our ideas of it.

A universal truth was a truth before we came into existence; it will be a truth after we are gone; it

would have been a truth if we had never come into the world.

Inorganic truths were truths before the terrestrial organic world had any existence.

There is no specific difference between truths, for a truth cannot be otherwise than true; a truth cannot be the negation of a truth, or its own negation.

When you say that a *necessary truth* is a truth *the contrary of which is impossible*, it is the same as if you were saying that there are truths which are not untruths, and this is a tautological truism.

A truth cannot be otherwise than true; therefore how could there be two opposite sorts of truths?

All truths are experiential truths; and if a truth is found to be truth by experience, how could it be said that the contrary of that truth is possible?

If you show that the contrary of a truth is possible, it is no more a truth.

There cannot be therefore any antithesis between necessary and experiential truths.

That a lunar month contains 30 days is a compound truth, the result of other physico-mathematical



truths. If the moon's month contained 40 days instead of 30, it would not be the opposite of the actual truth; it would only be another truth. When it is said that the astronomical truths which express the motions and periods of the sun, moon, and stars might have been otherwise,\* it is either a rash assumption, or it cannot mean anything, but that there might have been other astronomical truths.

*What* is could not have been otherwise than as it is, in the actual system of nature. If we do not see why it is so, it is not because it could have been otherwise; but it is either because the human mind has not yet attained a sufficient degree of culture; or on account of the limited power of our organization.

Philosophers have strayed out of the natural path when they have imagined an antithesis between truths. A truth is *that which is*. The antithesis of *that which is* would be *that which is not*; if *that which is* is a truth, *that which is not* cannot be a truth, but is either a simple negation of a truth, or a phrase which has no meaning at all.

\* Dr. Whewell, 'Ind. Sc.' vol. i. p. 19.

## § XLII.

All truths being founded on facts, facts being multifarious, and the knowledge of facts constituting all our real knowledge, the powers of our minds are continually applied to discriminate between facts, to collect together those which are alike, to recognise their natural relations, and the order according to which they succeed to each other.

Thus our ideas of plants, animals, stones, &c. have been formed.

On the one hand, the great assemblage of individual beings or objects is arranged, according to certain characters of resemblance and dissimilarity, into classes, families, genera, and species, and forms what is called the natural sciences.

On the other hand, when we observe things in their motions—when we remark, for instance, that—

“A balloon rises in the air ;

“That a piece of wood floats on the surface of water ;

“That a stone falls into an abyss :”

At the first sight the balloon's rising appears exactly the reverse of the stone's falling. But science, or cultivated common sense, teaches us that if the balloon rises, it is only because the air *falls under* the balloon; in the same manner as water falls under a piece of wood, and a stone falls under the air. Hence these three facts, and many others similar, are classed together in a common formula, to which we give the name of law of gravitation. Thus were formed the other natural laws or formulæ, including the various branches of mathematical, physical, and chemical sciences.

---



## CHAPTER XIV.

§ XLIII. GENERAL CONCLUSIONS—Origin of the idea of Causation—Dr. Brown—Hume—In what they agree—Examination of Dr. Brown's opposition to Hume's theory that the idea of power is derived from memory, and the idea of necessity from experience—Inconsistency of Dr. Brown's disquisition—§ XLIV. Why M. A. Comte has thought that the word *cause* could be dispensed with in scientific language—§ XLV. M. Comte's error in rejecting all inquiries after causes—Natural ground of the idea of God—The idea of causation to be pursued in the historical series of natural events.

## § XLIII.

"THE world," says Dr. Brown, "is a mighty system of changes. The great masses, the atoms which compose them—whatever is destitute of organization, as much as the organized beings that are vegetating or living or dying—all are subjects and exhibitors of unceasing variety. . . . The great character of all these changes is the regularity that enables us to accommodate our plans, with perfect foresight, to

circumstances which may not yet have begun to exist. . . . . To the preservation of life itself the faith is essential, which converts the passing sequences of phenomena into signs of future corresponding sequences." \*

What is the origin of this faith?

It seems, from the enunciation above, that it has its first source in the observation of the course of nature, or in our experience. We see that these changes occur, according to a regular order; that events do not succeed each other at random; but that every fact is always preceded by its appropriate antecedent fact; and, *vice versâ*, that every antecedent fact is always followed by its appropriate consequent fact. Hence our idea of cause and effect. Hume forcibly establishes this in his 'Essay on the Human Understanding.'

"We remember," he says, "to have seen that species of object we call *flame*, and to have felt that species of sensation we call *heat*; we likewise call

\* Thomas Brown's 'Inquiry into the Relation of Cause and Effect.' 4th Edition, London, 1835, p. 7.

to mind their constant conjunction in all past instances: without further ceremony, we call the one *cause* and the other *effect*.” \*

Cause is the anterior fact; Effect is the fact which follows; and the idea of necessity has no other origin than the observation of the constant repetition of the same relation between antecedent and consequent facts.†

Dr. Brown fully admits, with Hume, that the notion of *cause*, or its equivalent, *power*, is nothing more than our belief of the uniformity of an invariable antecedent.‡ But, in opposition to Hume, he

\* ‘Hume on the Understanding,’ p. 121. Edinb. ed., 1825.

† “Either we have no idea of necessity, or necessity is nothing but that determination of the thought to pass from causes to effects, and from effects to causes, according to their experienced union.” *Ibid.*, p. 220.

‡ “Power is only a shorter synonymous expression of *invariableness of antecedence*, and the invariableness is not anything separable or distinguishable from antecedents and consequents themselves. In all the changes which the substances in nature undergo, the substances themselves alone have any real existence; and what we term Power, in the anticipation of any future change, is itself the antecedent substance, or it is nothing.” Brown, p. 189.

denies that that idea is derived from memory, and the idea of necessity from repeated observations or experience. He contends that the idea of cause originates in the mind itself; "that it is an original feeling, intuitive, and immediate on the perception of change." \*

But, although Dr. Brown has written 130 long pages to state and develop these objections, he has not, in the least, shaken the plausibility of Hume's deductions; and it is no difficult task to show, from the very expressions used by him, that he has put himself in flagrant contradiction with his own doctrine.

First. If the idea of cause has its elements in the mind itself, how is it that Dr. Brown premises, in the beginning of his exposition,† that "priority in the sequence *observed*, and invariableness of antecedence in the past and future sequences *supposed*, are the elements, and *the only elements*, combined in the notion of a cause"?

Secondly. Unless we absolutely refuse to recog-

\* See p. 356.

† See p. 13.

nise the real meaning of clear and well understood expressions, the idea of *invariableness* cannot possibly be supposed to depend upon a single observation. Variableness supposes a *number of things, or states of one thing, or observations*, various in their nature, unconstant, changeable, which are not the same: invariableness, being the opposite of this, signifies a *number of things, or states of one thing, or observations*, alike, constant, similar, or unchanging. Now, since the idea of invariableness is one of the elements of the idea of cause, in the established system of natural laws, how could it be pretended that this idea originates from an *instant belief*, determined by a first and single observation?

This is sufficient to show the inconsistency of Dr. Brown's desultory disquisition on Hume's doctrine of cause or power. The idea of necessity, in the sense in which it is used by Hume, comprehends that of invariableness; and Hume's theory was certainly true at the time it was proposed, and still remains true, inasmuch as it only refers to the relations of cause and effect in the actual order of nature.



## § XLIV.

It has been shown in the preceding investigations that the idea of *Cause*, as well as the general ideas of Space, Time, Number, &c., has its foundation in our experience. That philosophers have been led to consider the origin of the idea of Cause as an insoluble problem,\* is an error, the origin of which it would be useless to examine. It is sufficient to have recognised that the idea arises from the observation of the relations of antecedence and sequence between natural events. This is so true, that the expression *Cause* can be dispensed with in scientific language, when we have only to refer to the *actual* course of nature, and may be replaced by that of Natural Law, or any other specific term which implies the uniformity of the antecedent fact. It is for this reason that my so justly celebrated countryman, M. Auguste Comte, has been able to reject the idea

\* See 'Encyclopædia Britannica,' 6th Edition, Vol. XVI., quoted in 'Philosophy of Geology,' second edition, p. 44.

of Cause from his 'Philosophie Positive;' although it must be evident that he cannot have any objection to the word, as equivalent to the idea of a fact antecedent to a change.

#### § XLV.

But, besides dismissing the expression of Cause, M. Comte has accepted as his fundamental ground the *absolute* invariableness of the antecedent fact; and has thus, in my opinion, fallen into an error which vitiates the very basis of his philosophy. In rejecting all inquiries after *Causes* as inaccessible, he has prejudged the question of the invariableness of the actual course of nature, and virtually adopted, *à priori*, the dogma of the eternity of the established order of things.

This is the only ground on which M. Comte's system can be opposed. Against *this view* of his *positive philosophy* I adduce positive facts—facts which lead us to the idea of a beginning of the actual natural laws—viz., the history of the globe, the geological collections, and recorded realities,

which bring forth before us the exhumed remains of the first organised beings which have appeared on the consolidated surface of the earth; and conduct us possibly, through an uninterrupted series of material events, to the primordial idea of the formation of the sidereal centres of attraction in space.\*

Here I place the natural and philosophical ground of the idea of GOD: a creation supposes a Creator.

Because material facts are urged against the in-

\* Dr. J. S. Mill in his 'System of Logic,' boldly asserts that "any one accustomed to abstraction and analysis, who will fairly exert his faculties for the purpose, will, when his imagination has once learnt to entertain the notion, find no difficulty in conceiving that in some one, for instance, of the many firmaments into which sidereal astronomy now divides the universe, events may succeed one another at random, without any fixed law."

After this it appears to me not a little astonishing that the idea of events anterior to the series or beginning the series of actual laws, such as the formation of centres of attraction in space, and the creation of organised beings, did not occur to Dr. Mill's mind, otherwise he would not have thought that events could *succeed each other* at random—a view which, notwithstanding what the learned Doctor says, is absolutely incomprehensible; and he would have found it to be so had he tried to illustrate the proposition by some examples,

variability of the antecedent fact *in past times*, the notion of habitual sequence is incomplete as the basis of a philosophical system.

Inquiries into the past have led us to recognize that there was a time when a species of animal or plant *did not* originate from a parent stock ; that there had been a first man rising on this earth, who had not a human father ; and that the actual order of things has not existed from eternity. Invariableness is not therefore *absolute*.

For this reason, and no other, the idea of Causation ought to be pursued in the historical series of natural events, without admitting *à priori* the restriction of the invariability of the antecedent fact.

Thus we may hope to advance a step nearer the great philosophical aim of the human mind—the contemplation of the Cause of Natural Laws, the First and Supreme Cause, the Cause of Causation.

---

## CHAPTER XV.

### A NEW IDEA.

#### § XLVI.

THE whole of the substance which constitutes the solid and liquid mass of the terrestrial globe formed once an immense aëriform sphere.

*This sphere was composed of as many concentric atmospheres as there are simple bodies now existing in the entire mass.*

Each of these atmospheres was possessed of a special independent existence, according to Dalton's law, "that one gas acts as a *vacuum* with respect to another;" in the same manner as carbonic acid, azote, and oxygen exist now, gravitating each by itself around the consolidated shell of the earth.\*

\* As I happen to be aware that there are learned gentlemen, always ready to appropriate, and to endue with the splendour of their own style, new ideas, as soon as they are proposed by their fellow-labourers in the field of science; I

## § XLVII.

The idea expressed above, which I think will be considered as a novelty, as to the part printed in *Italics*, has more of the character of a conception *à priori* than the cranial homologies of Oken, and

would humbly beseech those gentlemen (in case they should think proper to grace with their own name the idea above), to be so kind as to take it *literally* from me, and not to dilute it in their own phraseology, however elegant ! For, although I am quite sensible of the immense advantage *to the idea*, of such distinguished adoption, I cannot look upon it but with the prejudice of a parent's eye, and it grieves me, severely, when I see the simple dress, which I had thought most suitable for the new progeny, replaced by another clothing (however splendid !) which conceals its natural proportions.

That the public may judge that these remarks are not without some foundation, let them look at a new idea which I suggested in 'The Philosophy of Geology,' p. 139, and compare it with Mr. Ansted's version of that very idea, in his 'TALES ON THE ANCIENT WORLD,' p. 386.

*Mr. Jobert's Idea.*

THE system would have been more rational if Mr. Lyell, modifying the ideas of Brocchi, had supposed a natural limit to the existence of the species, and at the same

*Mr. Ansted's Garment.*

WE know not why or how it is that the egg of a butterfly, when it has existed for a certain time, and has been exposed to a certain temperature, becomes a worm,

than many other ideas which the disciples of Kant consider as originating in the human mind, independently of experience: but I intend to show, in my next Essay, that this idea originated in my mind through the inductive process.

time, an inherent organic principle which would have caused it to give birth, at the moment of its destruction, to a superior species, through a process similar to that of the metamorphosis of insects, from the state of larvæ to that of a fly or a butterfly. He might have considered, for instance, the Trilobites as larvæ destined to procreate, at the moment of their extinction, as species, the new families and the new genera which succeed to them. The species of fishes of the old red sand-stone would have been the tadpoles of the species which have followed them; he might, even, have advanced that nature had employed for the production of new classes, means different

greedily devouring *green food*, rapidly increasing in size, and performing the important part it is known to do in the economy of nature. Still less, if possible, can we judge of the cause why this worm, after a time, building for itself a warm coat of silky fibre, burying itself as it were in a shroud of its own manufacture, ceasing to feed, and scarcely remaining alive, at last it bursts forth in the form of the parent animal, and lives for a short time on the tender juices of flowers. Surely this is not less remarkable, although the phenomenon is more familiar, than the succession of species which we observe to have taken place during the lapse of time, or the representa-

Thus, in pursuing the course of my investigations, and endeavouring to lay the foundation of a new system of Philosophy, I shall have for a secondary object to strengthen the leading argument of the

from those which are known to us; that prolific aggregations of Trilobites might have engendered the Saurian reptiles, which in the Permian and Triassic systems succeed to these Crustacea, which entirely disappear in the last of these systems. But, although Mr. Lyell's views, thus modified, would have appeared more intelligible, these suppositions would have added nothing to the probability of the hypothesis itself.

tion of species well known to exist over wide areas in space.

The analogy is not greatly strained, if we suppose that the original plan of development of all organic nature, whatever it may have been, included succession and representation of species, just as the development of the moth includes metamorphosis; nor is it unphilosophical to suggest such an illustration as an explanation, not only safe to a certain extent, but even satisfactory with regard to many of the difficulties presented by this subject.

Because I have allowed M. Elie de Beaumont the privilege of enjoying, for eighteen years, the working out of another idea of mine (see 'Philosophy of Geology,' chap.



preceding Essay, that all truths whatever are acquired to us through the channel of our senses, or founded on experience.

viii.), without claiming my right of property; it is not a reason why others should take occasion from my forbearance to consider my writings as a legitimate source of plunder and piracy. Patience has its limits; it is not a universal and necessary truth!

END OF THE FIRST ESSAY.

*By the same Author.*

---

## THE PHILOSOPHY OF GEOLOGY.

Price 5s. 6d.

SECOND EDITION.

ALSO,

## LA PHILOSOPHIE DE LA GÉOLOGIE.

Price 5s. 6d.

---

### OPINIONS OF THE PRESS.

"Really what it is called, 'The Philosophy of Geology.' It is a book of profound thought, and showing a large grasp of intellect."

*The Critic*, No. 131, July 3, 1847.

"A clever and ingenious refutation of the doctrine of 'the eternity of the actual course of nature.' It is directed chiefly against the theories of Hutton and Lyell, and though very compendious, is, in many respects, exceedingly well done."—*Dublin Review*, Jan. 1848, p. 524.

"It is an interesting work, not burdened with details, but full of instruction and of materials for thinking."—*Family Herald*, Nov. 7, 1846.

"Geology is an hymn to the Creator, and the author has made his work worthy of his theme. The essay is at once clear, original, and profound, forming a small book as to quantity, but as to quality invaluable."

*Truth Teller*, Oct. 15, 1846.

"One of the main objects of this very valuable work is to refute the doctrines of Hutton, and the arguments adduced by Mr. Lyell in their support. . . . Mr. Jobert's speculations are very ingenious. We can strongly recommend this work to all geological students, and we do so with the greater pleasure, on account of the reverential piety which animates its author. The volume is altogether free from dogmatism; and the new views enunciated are expressed with all that modesty and deference which characterize real merit."—*Douglas Jerrold's Newspaper*, Sept. 25, 1847.

"The 'Philosophy of Geology' seems to us to be a very erudite, scientific disquisition, entering into the most recondite details; but proceeding with due caution and keen discrimination to the various conclusions the author is fain to vindicate."—*Hood's Magazine*, 1847, page 480.

"Those who take an interest in the higher generalizations of geology, will find much in this book that will repay a careful perusal. The conclusion that Mr. Jobert arrives at, with regard to the phenomena presented by geology is, that they are the result of a repeated intervention of a Supreme Providence, and not the consequence of an eternal law of invariable revolutions."—*Athenæum*—second notice—Dec. 11, 1847, p. 1271.

"The author of this elegant volume has done good service to the world by the publication of the results of his profound attention to the complicated details of Geology, whence he has deduced a 'Philosophy' at once original, simple, and satisfactory. The reader will find in it, not a dry epitome of facts, but a precious fruitage of philosophy."—*Truth Seeker*, vol. ii. page 452.

*By the same Author.*

---

THE ART OF QUESTIONING AND ANSWERING IN FRENCH.

BY A. C. G. JOBERT.

Price Four Shillings.

LONDON: Simpkin, Marshall, and Co.

PARIS: A. & W. Galignani & Co.

The peculiar and special object of this Book is to make the learner speak as soon as possible, by causing him at once to practise the language in its interrogative and *responsive* forms; and familiarising him with the most arduous part of the grammatical construction, viz., the use of those numerous auxiliaries which are substituted in the French language for the inflexions of Latin words, and which render it so difficult to foreigners.

The following Extracts, taken from a considerable number of letters addressed to the Author, will give an idea of the opinions formed of the Book by those entitled to be the best judges; viz., the most eminent teachers in London, Edinburgh, Dublin, and other principal towns.

"Having perused your excellent little Work, I am now prepared to give my candid opinion as to its merits. The positions of the personal and supplying pronouns usually form a serious drawback to the French Student's advancement, and although all the French Grammars treat more or less fully upon this knotty subject, still you are the first who has handled it in a truly perspicuous and masterly style. The elegant and judicious selection of your Phraseology is of itself highly commendatory of the Volume, as a *Recueil de Phrases*, but coupled with the important and principal object of the Work, and the admirably lucid and pleasingly progressive manner in which you establish your Rules, and lead the pupil step by step throughout the whole range of this indispensable though somewhat intricate portion of the French Syntax, the performance reflects the highest credit upon your judgment and skill, and you have, by so valuable a production, conferred a great benefit upon Teachers and Students of the French language.

"J. L. MAZZONI,

"Teacher of French.—Lately of the High School, Leith."

"I have had the pleasure of receiving the book you have sent me. I have examined it with care, and I congratulate you sincerely. Your Exercises fill up a deficiency. I will recommend the book.....Public approbation ought to be your reward.

"C. DELILLE,

"Professor of the French Language at Christ's Hospital, &c. &c."

"I think this little volume is very well written; it is a precious addition to those elementary books which facilitate the most, in this country, the understanding of our language. I wish sincerely you may receive the reward of your labour.

"ISIDORE BRASSEUR,

"King's College, London, Sept. 9th, 1843."